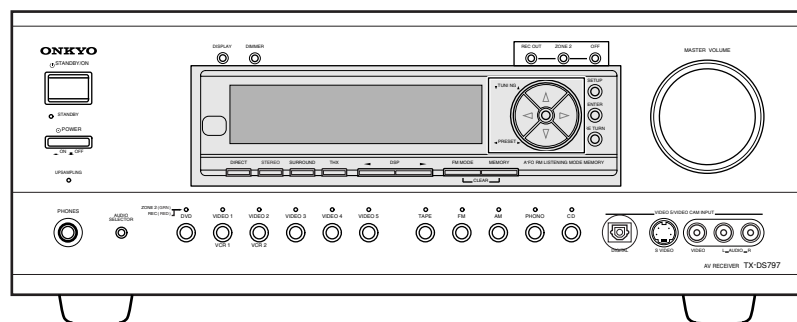


ONKYO® SERVICE MANUAL


AV RECEIVER MODEL TX-DS797



Black, Golden and Silver models

BMDD	120V AC, 60Hz
BMPP,SMPP,BMPA,GMPA	230-240V AC, 50Hz
BMWT,GMWT,GMWR	120/220-230V AC, 50/60Hz
GMGT	220-230V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

AMPLIFIER SECTION

Continuous Average Power output (FTC)

All channels:	100 watts per channel min. RMS at 8 ohms, 2 channels driven from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion. 130 watts min. RMS at 6 ohms, 2 channels driven from 1 kHz with no more than 0.1% total harmonic distortion.
Continuous Power output (DIN)	135 watts at 6 ohms
Maximum Power output (EIAJ)	160 watts at 6 ohms
Dynamic Power Output (Stereo)	2 x 250 watts at 3 ohms 2 x 210 watts at 4 ohms 2 x 130 watts at 8 ohms
Total Harmonic Distortion:	0.08% at rated power 0.08% at 1 Watt output
IM Distortion:	0.08% at rated power 0.08% at 1 Watt output
Damping Factor:	60 at 8 ohms
Input Sensitivity and Impedance	
PHONO:	2.5 mV, 50 kohms
LINE (CD, TAPE, DVD, VIDEO 1-5):	200 mV, 50 kohms
MULTICHANNEL INPUT (FRONT L/C/R, SURROUND L/R, SURROUND BACK L/R):	200 mV, 50 kohms
(SUBWOOFER):	36 mV, 50 kohms
COAXIAL 1, 2, 3 (DIGITAL):	0.5 Vp-p, 75 ohms
DVD, VIDEO 1, 2, 3, 4, 5:	1 Vp-p, 75 ohms 1 Vp-p, 75 ohms (Y)
COMPONENT VIDEO 1, 2:	0.28 Vp-p, 75 ohms (C) 1 Vp-p, 75 ohms (Y) 0.7 Vp-p, 75 ohms (Pb,Pr)
Output Level and Impedance	
Rec out (TAPE, VIDEO 1, 2):	200 mV, 470 ohms
Pre out:	1 V, 470 ohms
ZONE 2 OUT:	100mV, 470 ohms
VIDEO (VIDEO 1, 2, MONITOR OUT, ZONE 2 OUT):	1 Vp-p, 75 ohms 1 Vp-p, 75 ohms (Y) 0.28 p-p, 75 ohms (C) 1 Vp-p, 75 ohms (Y) 0.7 Vp-p, 75 ohms (Pb,Pr)
COMPONENT VIDEO OUT:	
Phono Overload:	120 mV RMS at 1 kHz, 0.5% T.H.D.
Frequency Response:	10 Hz to 100 kHz : +1/-3 dB (CD in Direct mode)
RIAA Deviation:	20 Hz to 20 kHz : 0.8 dB
Tone Control	
Bass:	10 dB at 50 Hz
Treble:	10 dB at 20,000 Hz
Signal-to-Noise Ratio (Stereo)	
Phono:	80 dB (IHF A, 5 mV input)
CD/Tape:	110 dB (IHF A, 0.5 V input)

TUNER SECTION

FM

Tuning Range:	87.5— 108.0 MHz (50 kHz steps)
Usable Sensitivity	
Mono:	11.2 dBf, 1.0uV (75 ohms IHF) 0.9uV (75 ohms DIN)
Stereo:	17.2 dBf, 2.0uV (75 ohms IHF) 23uV (75 ohms DIN)
50 dB Quieting Sensitivity	
Mono:	17.2 dBf, 2.0uV (75 ohms)
Stereo:	37.2 dBf, 20uV (75 ohms)
Capture Ratio:	2.0 dB
Image Rejection Ratio	
USA & Canadian models:	40 dB
Other area models:	85 dB
IF Rejection Ratio:	90 dB
Signal-to-Noise Ratio	
Mono:	76 dB
Stereo:	70 dB
Alternate Channel Attenuation:	55 dB
Selectivity:	50 dB (DIN)
AM Suppression Ratio:	50 dB
Total Harmonic Distortion	
Mono:	0.2%
Stereo:	0.3%
Frequency Response:	30 Hz— 15 kHz, 1.0 dB
Stereo Separation:	45 dB at 1 kHz 30 dB at 100 Hz— 10 kHz

AM

Tuning Range	
USA & Canadian models:	530 to 1,710 kHz (10-kHz steps)
European & Australian models:	522 to 1,611 kHz (9-kHz steps)
Worldwide models:	531 to 1,602 kHz (9-kHz steps) 530 to 1,710 kHz (10-kHz steps)
Usable Sensitivity:	30 uV
Image Rejection Ratio:	40 dB
IF Rejection Ratio:	40 dB
Signal-to-Noise Ratio:	40 dB
Total Harmonic Distortion:	0.7%

GENERAL

Power Supply	
USA & Canadian models:	AC 120 V, 60 Hz
European & Australian models:	AC 230-240 V, 50 Hz
Some Asian models:	AC 220-230 V, 50/60 Hz
Worldwide models:	AC 220-230 and 120 V switchable, 50/60 Hz
Power Consumption	
USA & Canadian models:	6.8 A
Other models:	550 W
Dimensions (W x H x D):	435 x175 x459 mm 17-1/8"x 6-7/8"x 18-1/16"
Weight	
USA & Canadian models:	35.9 lbs.
Other models:	17.3 kg

REMOTE CONTROLLER

Transmitter:	Infrared
Signal range:	Approx. 16 ft., 5 meters
Power supply:	Two "AA" batteries (1.5 V x 2)

Specifications and features are subject to change without notice.

A


B


C

D

SERVICE PROCEDURES

1. Replacing the fuses

- 1  This symbol located near the fuses indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

 Ce symbole indique que le fusible utilise est a rapide.
Pour une protection permanente, n'utiliser que fusibles de meme type. Ce dernier est la qu le present symbol est appse.

CIRCUIT NO.	PART NO.	DESCRIPTION
F901	252199	10A-UL/T-314,Fuse <D/WT/GT>
F902	252077,	4A-SE-EAK,
	252243 or	4A-SE-TL250V or
	252277	4A-SE-TL250V,Fuse <P/WT/R/A/GT>
F903	252075,	2.5A-SE-EAK,
	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>
F9501,F9502	252160 or	2.5A-UL/T-237 or
	252254	2.5A-T/UL-ST2,Fuse <D>
	252075,	2.5A-SE-EAK,
	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>
F9503,F9504	252158 or	1.6A-UL/T-237 or
	252252	1.6A-T/UL-ST2,Fuse <D>
	252073 or	1.6A-SE-EAK or
	252239	1.6A-SE-TL250V,Fuse <P/WT/R/A/GT>

Note: <D>:120V model only
<P>: European model only
<WT>: Worldwide model only
<R>: Asian model only for 230V
<GT>: 220V model only
<A>: Australian model only

2. To initialize the unit

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.

To perform a result, please follow the procedure below.

- 1.Press and hold down the VIDEO 1 button, then press the STANDBY/ON button.
- 2.After "clear" is displayed, the preset memory and each mode stored in the memory, such as surround, are initialized and will return to the factory setting.

3. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer.

- 5 Connect the insulating-resistance tester between the plug of power supply cord and screw on the back panel.
Specifications: 3.3Mohm \pm 10% at 500V.

4. Memory Preservation

This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in order to charge the back-up system.

The memory preservation period after the unit has been unplugged varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time the unit has been unplugged. This period is shorter when the unit is exposed to a highly humid climate.

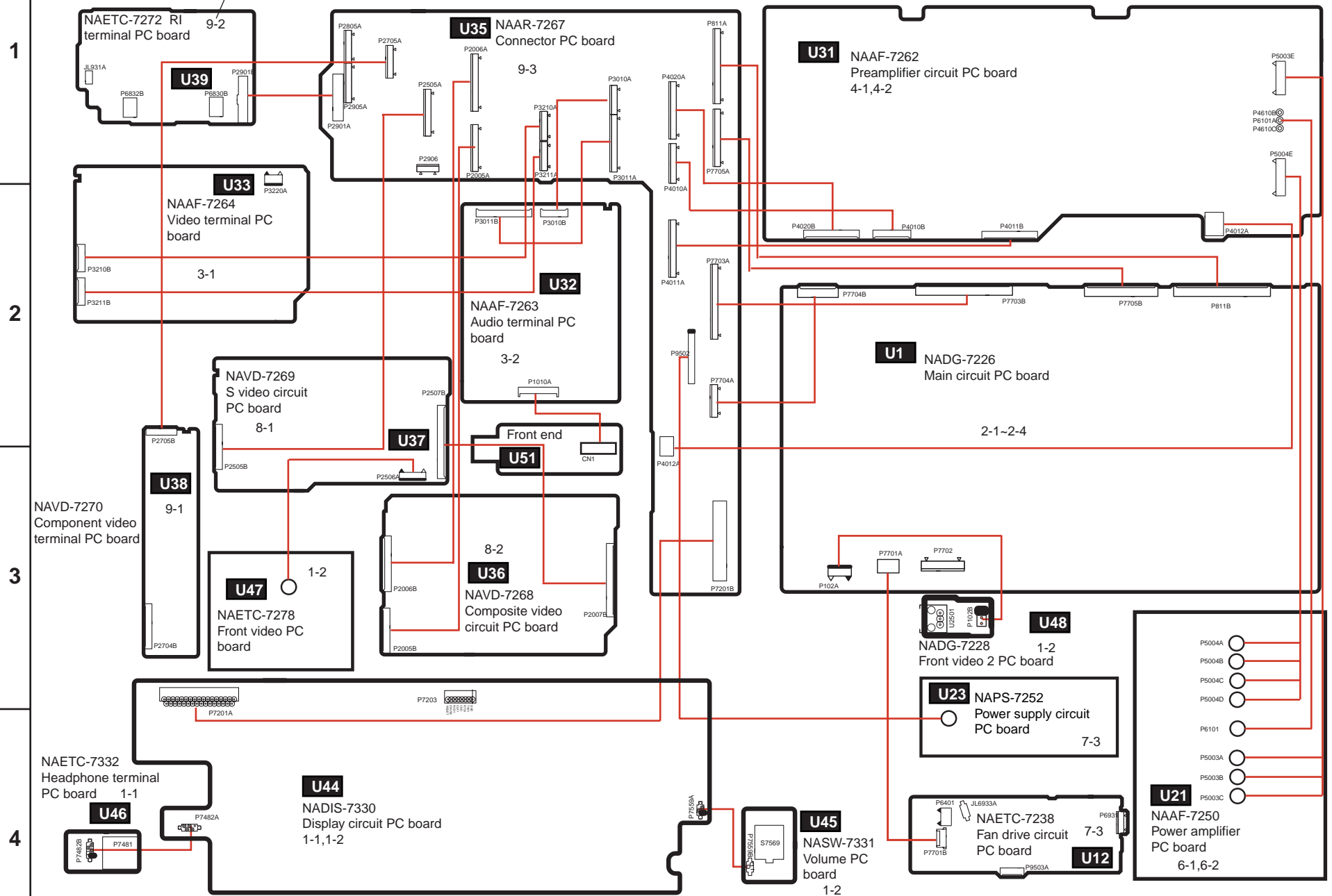
5.Setting the Voltage selector (Worldwide models only)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit.

1. Determine the proper voltage for your area: 220-230 V or 120 V.
2. If the preset voltage is not correct for your area, insert a screw-driver into the groove in the switch. Slide the switch all the way to the right (120 V) or to the left (220-230 V), which ever is appropriate.

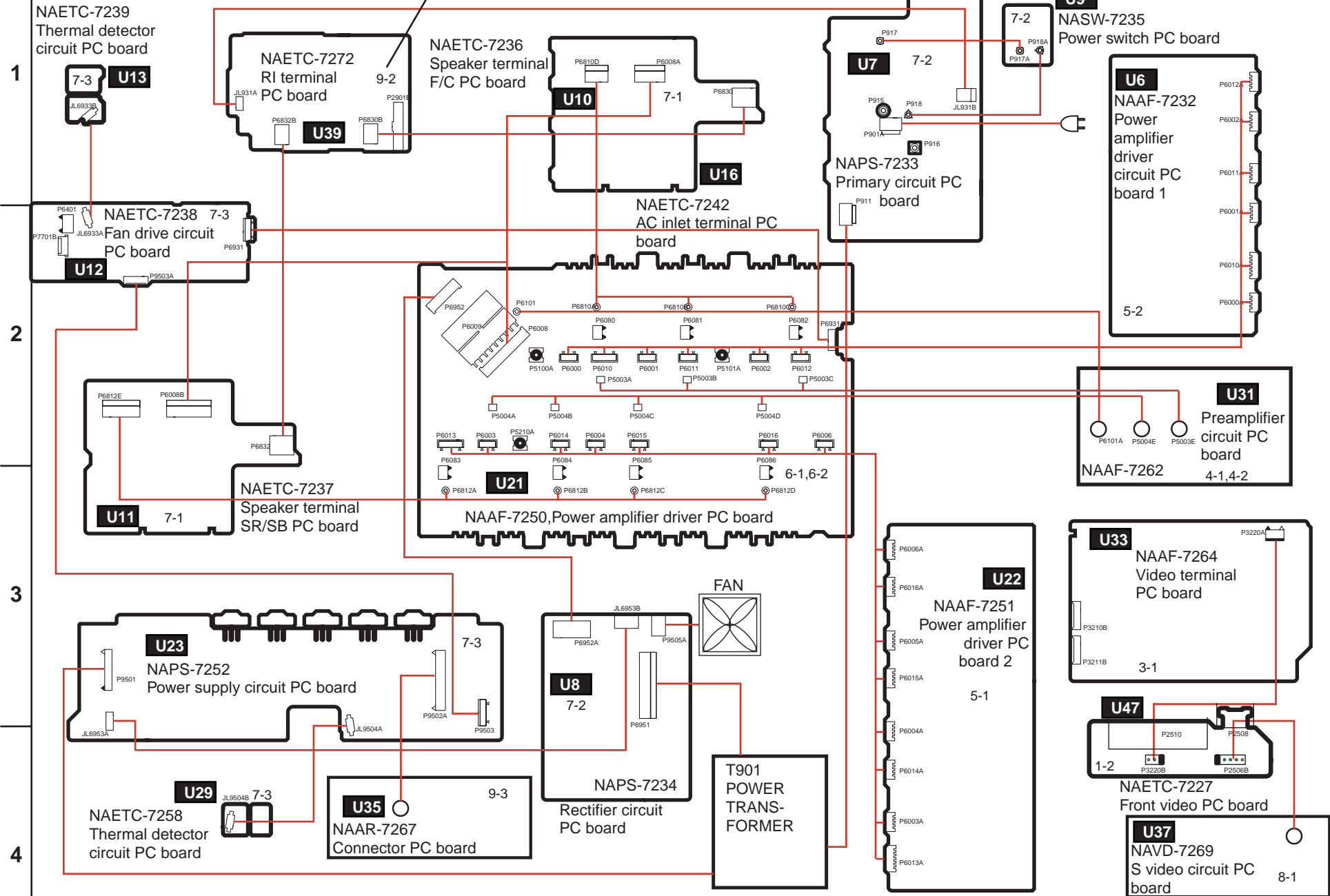
WIRING VIEW 1

9-2 shows the number of schematic diagram.



WIRING VIEW 2

9-2 shows the number of schematic diagram.



A B C D E F G H

BLOCK DIAGRAM

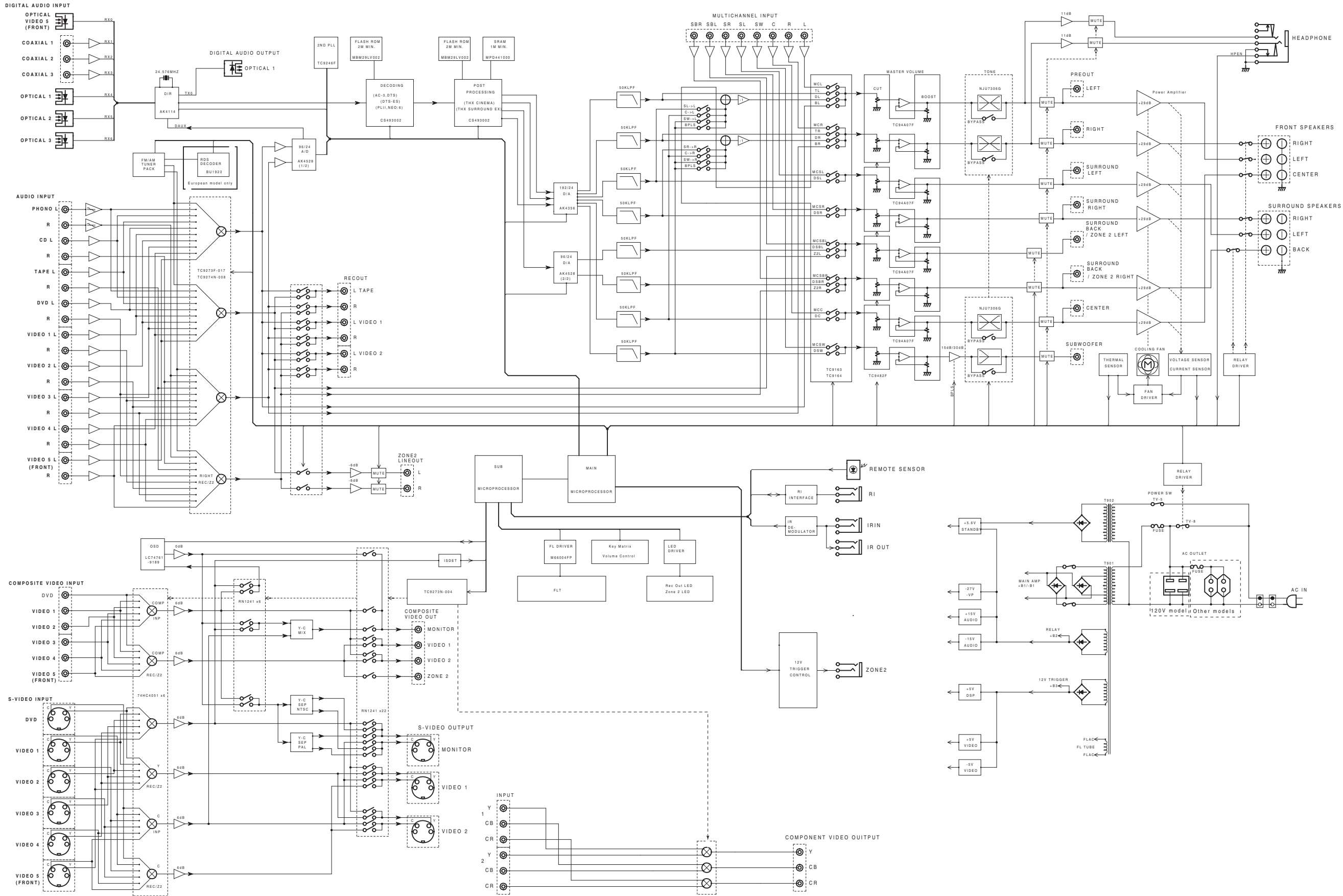
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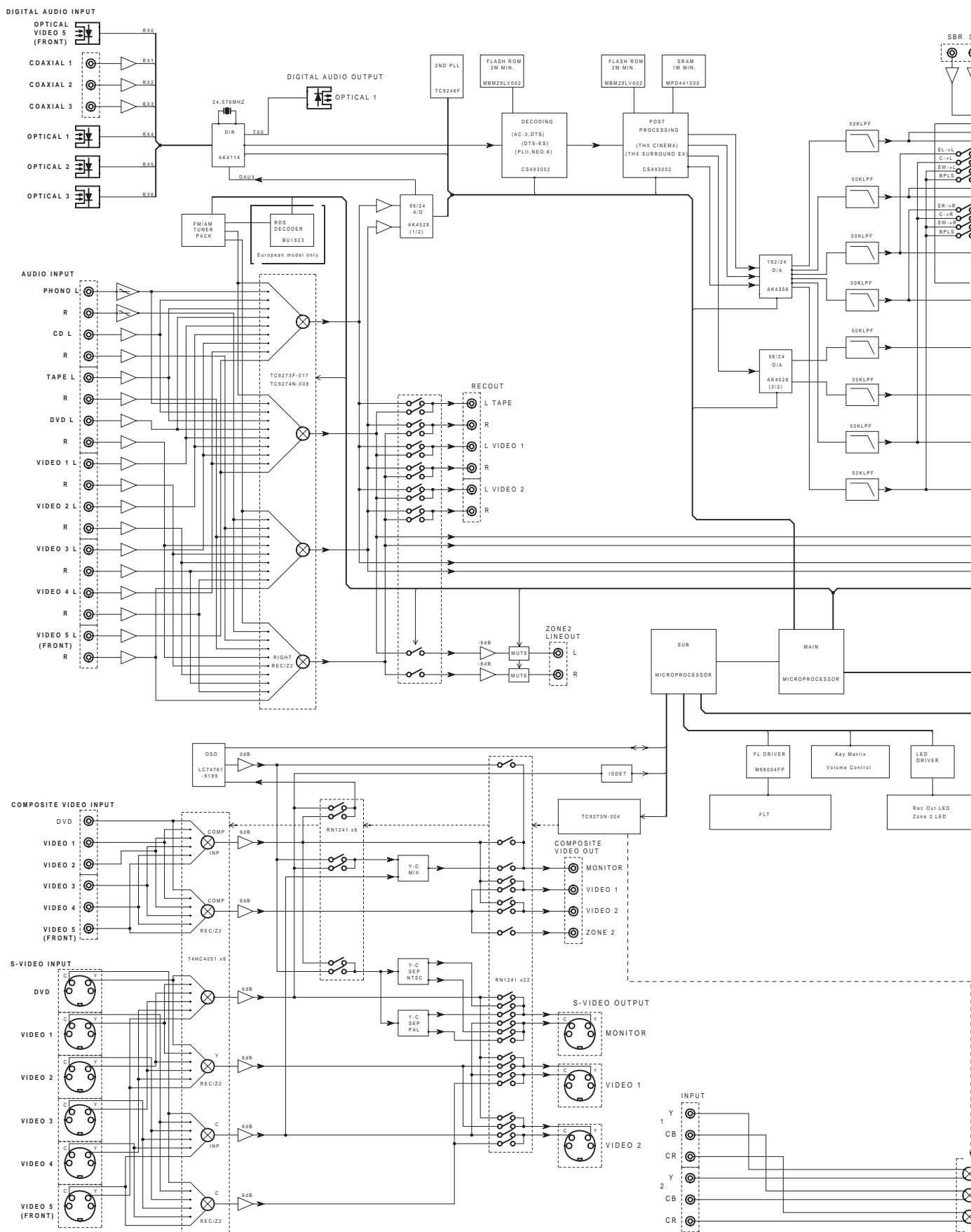
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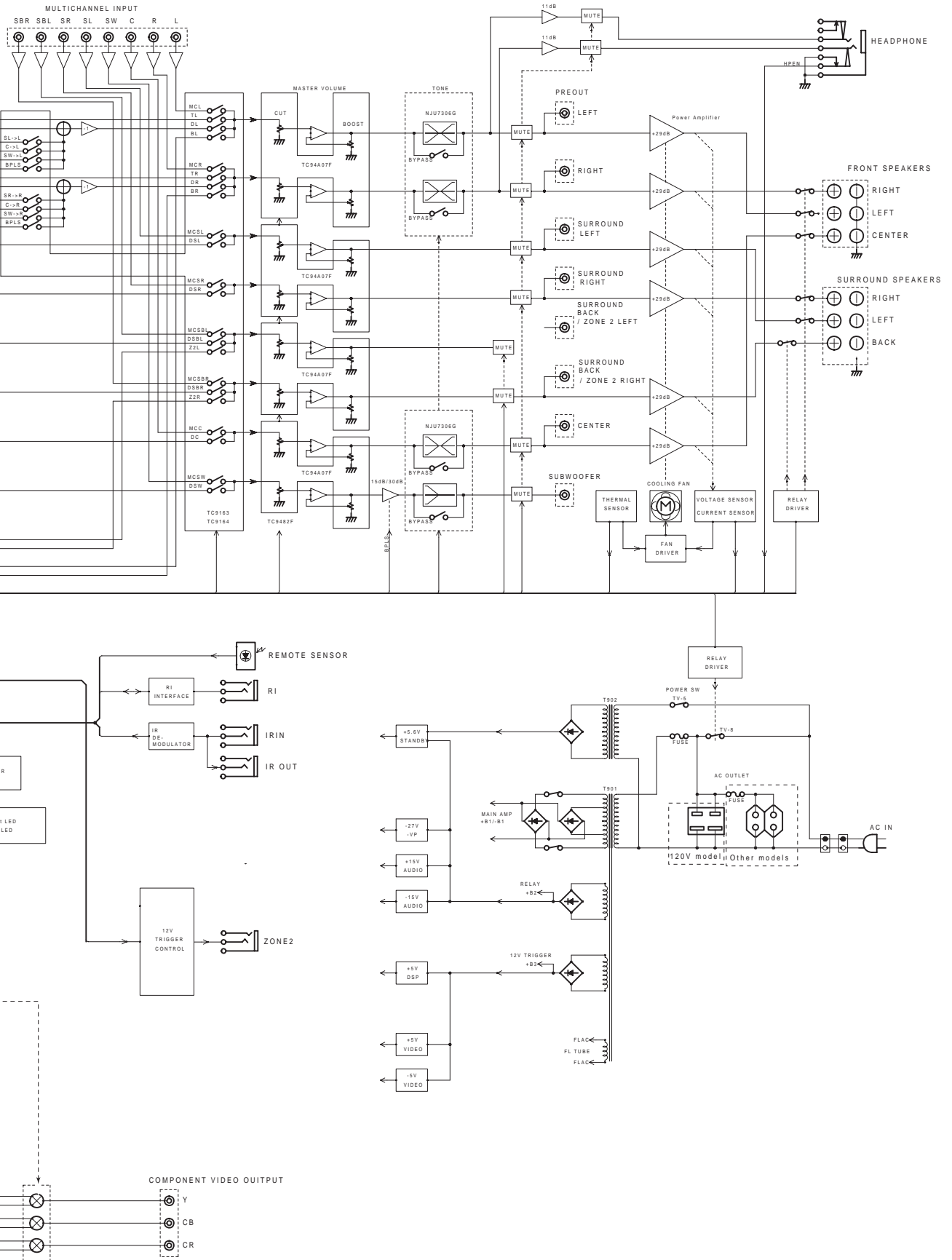
5



BLOCK DIAGRAM 1



BLOCK DIAGRAM 2



MICROPROCESSOR CONNECTION VIEW
MAIN MICROPROCESSOR

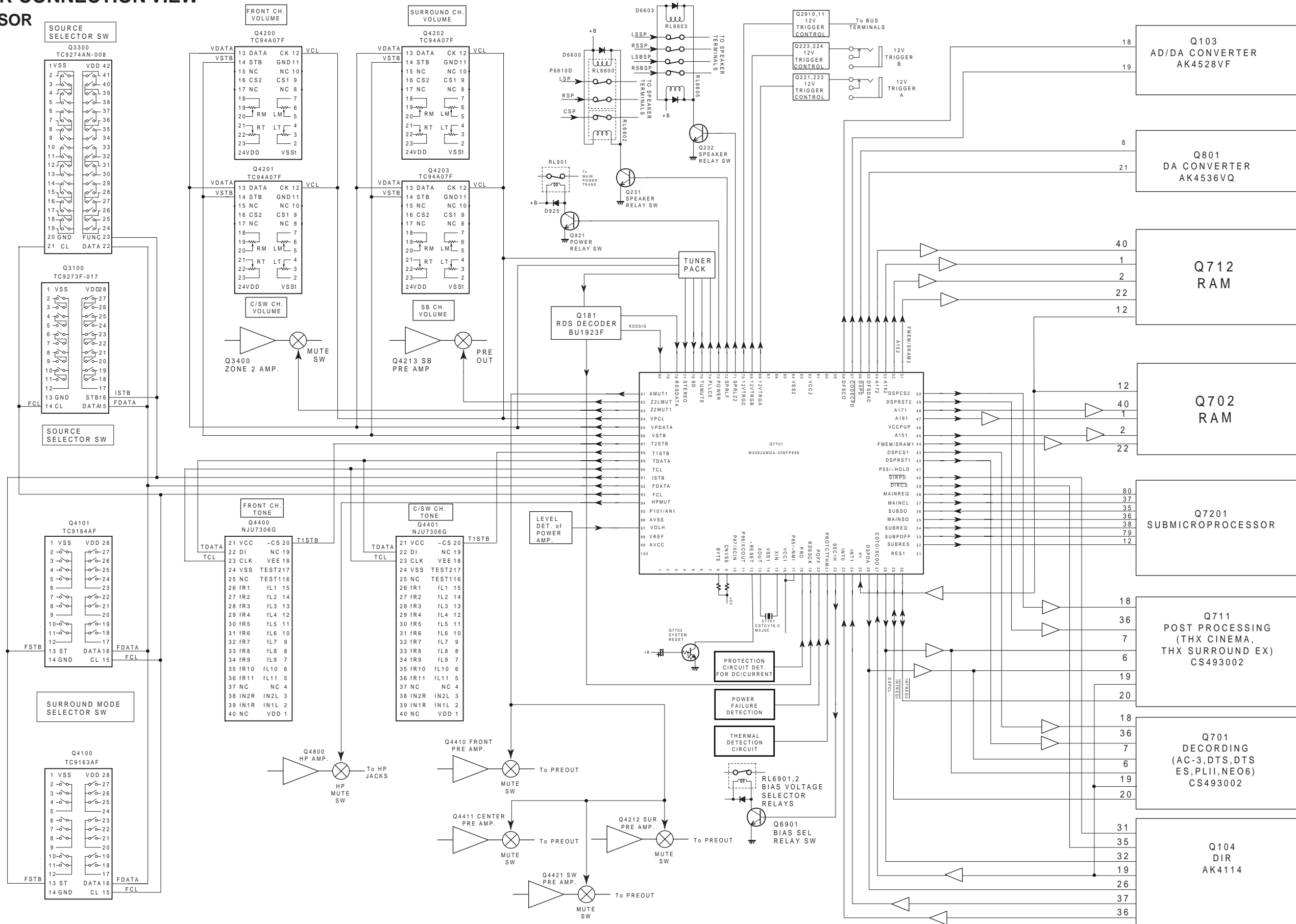
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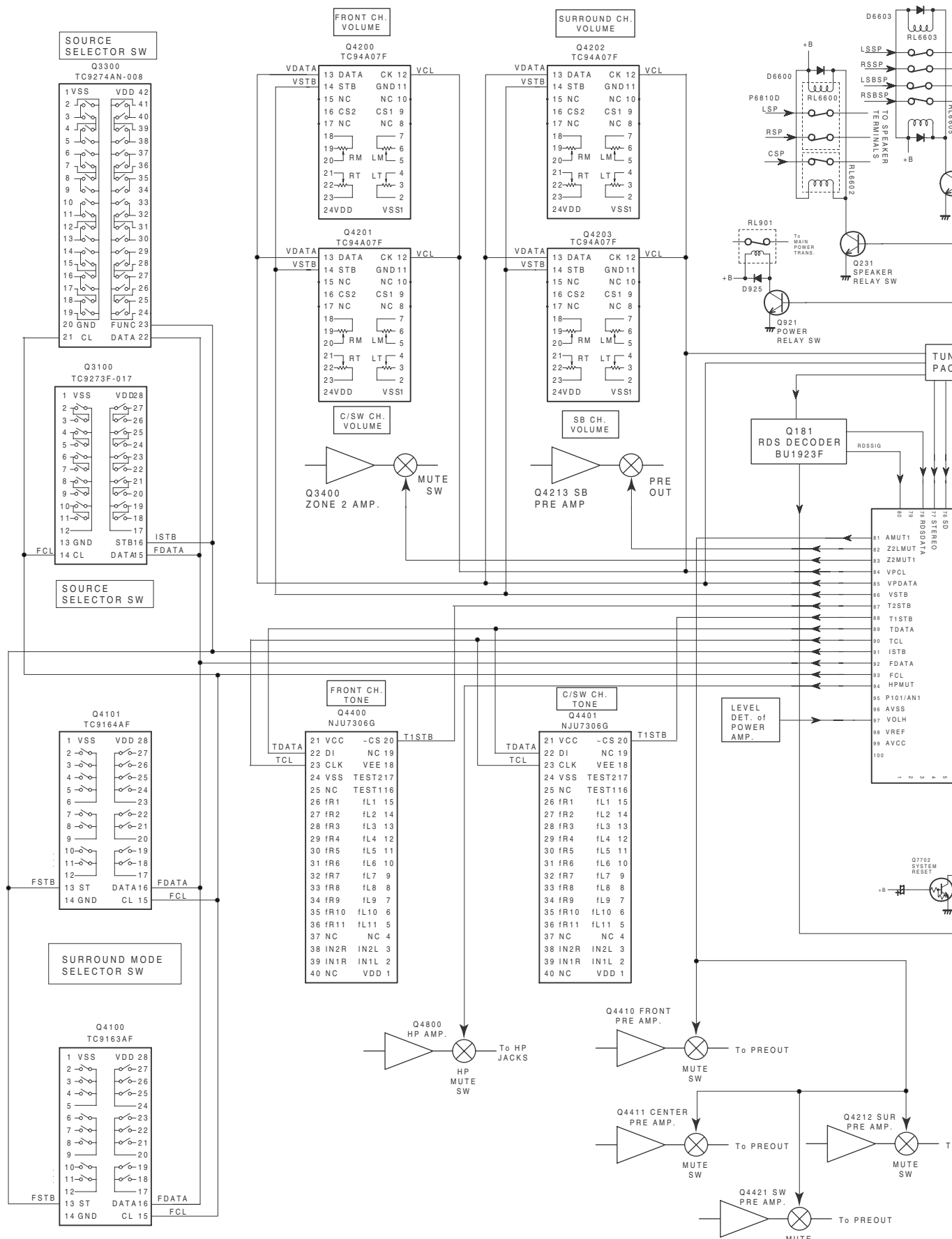


MAIN MICROPROCESSOR

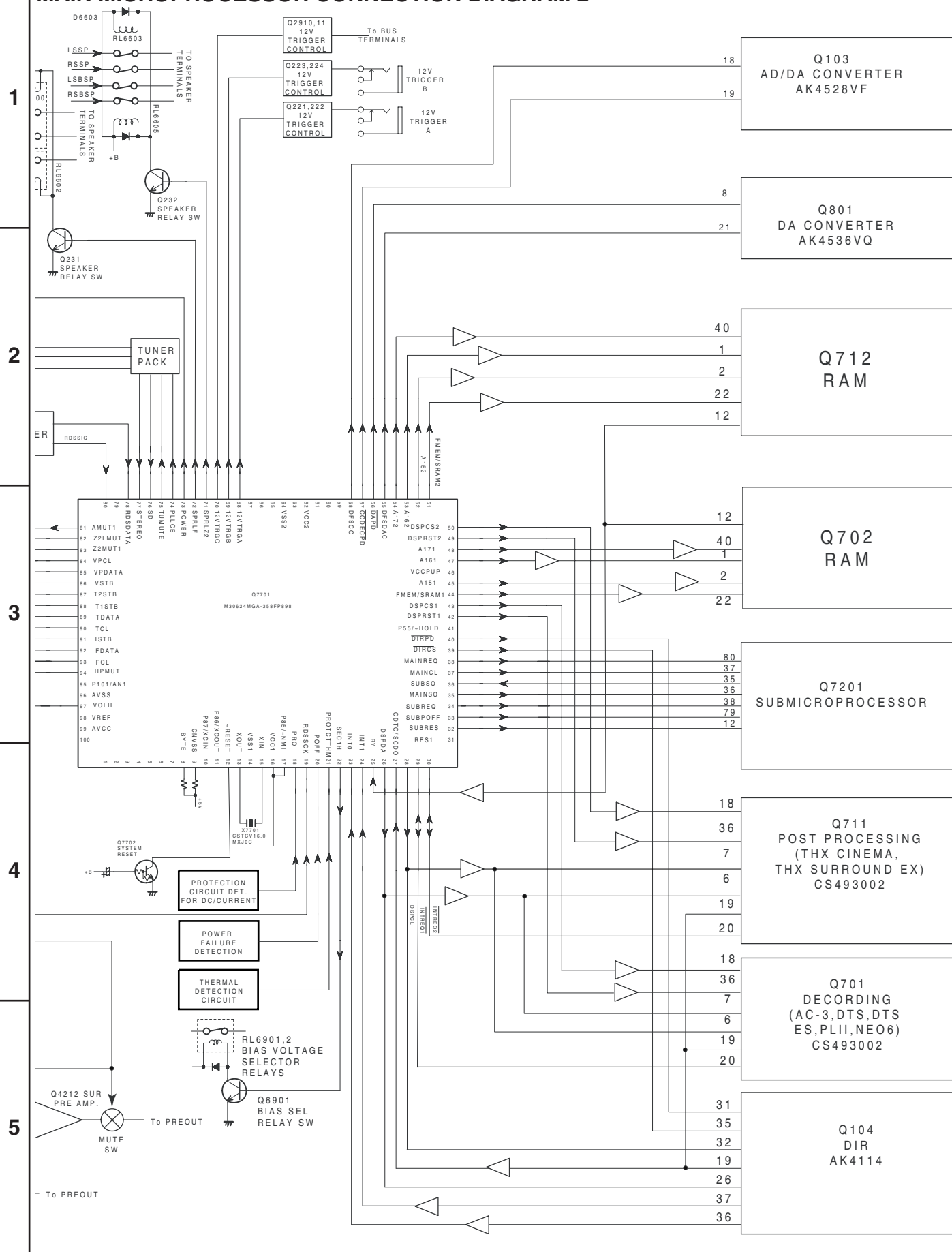
Terminal Descriptions

No.	Function	I/O	Act.	Description	No.	Function	I/O	Act.	Description
8	BYTE	I		Input pin to change the width of external data bus. Connect to Vss.	52	ADR152	O	H	Signal output pin to control address 15 of flash memory for second DSP.
9	CNVSS	I		Input pin to change the processor mode. Connect to Vss.	53	ADR162	O	H	Signal output pin to control address 16 of flash memory for second DSP.
12	~RESET	I		Reset pin of microprocessor	54	ADR172	O	H	Signal output pin to control address 17 of flash memory for second DSP.
13	XOUT	O		Output pin of main clock oscillator	55	DFSDAC	O	H	DAC sampling control output pin.
14	VSS	I		Ground pin	56	~DARST	O	L	Reset output pin for six channels DAC.
15	XIN	I		Input pin of main clock oscillator	57	~CODECPD	O	L	Reset output pin for CODEC IC.
16	VCC	I		Power supply pin. Apply 5V.	58	DFSCO	O	H	Sampling frequency control output pin for CODEC IC.
18	PRTCTV	I	H	Abnormal voltage/current detection input pin from protection circuit	62	VCC	I		Power supply pin. Apply 5V.
19	RDSSCK	I	CLK	Modulator clock signal input pin from RDS decoder IC.	64	VSS	I		Power supply pin. Connect to ground.
20	~POFF	I	L	Input pin from detection circuit of power failure	68	TRG12A	O	H	Output pin A to control the 12V trigger circuit.
21	~PRTCTTHM	I	L	Input pin from thermal detector circuit.	69	TRG12B	O	H	Output pin B to control the 12V trigger circuit.
22	SEC1H	O	H	Output terminal to change voltage of main amplifier.	70	TRG12Z	O	H	Output pin to control the 12V trigger circuit of zone 2.
23	INT0	I	H	Input terminal from interrupter output of DIR IC.	71	SPRLZ2	O	H	Output pin to control the speaker relay of zone 2.
24	INT1	I	H	Output terminal to interrupter input of DIR IC.	72	SLRLF	O	H	Output pin to control the speaker relay.
25	(DSPWRITE)	I	L	Input port for check when DSP flash write.	73	POWER	O	H	Output pin to control the relay of power source.
26	DIGSO	O	H	Serial data output pin to DSP, DIR, DAC, and Digital input ICs.	74	PLLCE	O	H	Latch data output pin to PLL IC.
27	DIGSI	I	H	Serial data input pin from DSP, and DIR ICs.	75	TUMUT	O	H	Muting control output pin for tuner block.
28	DIGSCK	O	CLK	Serial clock output pin to DSP, DIR, DAC, Digital input ICs.	76	~SD	I	L	Signal detection input pin from tuner section.
29	~INTRQ1	I	L	INTRQ input pin from DSP IC 2(CS49329)	77	~STEREO	I	L	Stereo broadcast detection input pin.
30	~INTRQ2	I	L	INTRQ input pin from DSP IC 1(CS49300)	78	RDSDATA	I	H	Data input pin from RDS demodulator IC.
32	~SUBRESET	O	L	Reset signal output pin to sub-microprocessor.	79	RDSSIG	I	H	Check signal input pin of RDS demodulator IC.
33	~SUBPOFF	O	L	Output pin to connect to pin POFF of sub-microprocessor.	81	AMUT	O	H	Muting control output pin for audio circuit.
34	~SUBREQ	I	L	Communication request input pin from sub-microprocessor.	82	Z2LMUT	O	H	Muting control output pin for line of zone 2.
35	MAINSO	O	H	Serial data output pin to sub-microprocessor.	83	Z2MUT	O	H	Muting control output pin for zone 2.
36	MAINSI	I	H	Serial data input pin from sub-microprocessor.	84	VPCLK	O	H	Serial clock output pin to electrical volume and PLL IC.
37	MAINSCK	O	CLK	Serial clock output pin for communication of main and sub-microprocessors.	85	VPDATA	O	H	Serial data output pin to electrical volume and PLL IC.
38	~MAINREQ	O	L	Communication request output pin of main microprocessor.	86	VSTB	O	H	Strobe output pin to electrical volume IC.
39	~DIRCS	O	L	Chip select output pin of DIR IC.	87	TCS2	O	L	Chip select output pin to tone control IC of surround and center channels.
40	~DIRRST	O	L	Reset signal output pin to DIR IC.	88	TCS1	O	L	Chip select output pin to tone control IC of front channel..
41				Writing port of flash memory IC.	89	TDATA	O	H	Serial data output pin to tone control IC.
42	~DSPRST1	O	L	Reset signal output pin to DSP IC 2.	90	TCLK	O	CLK	Serial clock output pin to tone control IC.
43	~DSPCS1	O	L	Chip select output pin to DSP IC 1.	91	FSTB	O	H	Strobe output pin to function switch ICs.
44	FMEM/GRAM1	O	H	Memory select output pin to RAM.	92	FDATA	O	H	Serial data output pin to function switch ICs.
45	ADR151	O	H	Signal output pin to control address 15 of flash memory for first DSP.	93	FCLK	O	CLK	Serial clock output pin to function switch ICs.
46				Port to write the flash memory IC.	94	HPMUT	O	H	Muting control output pin for headphone circuit.
47	ADR161	O	H	Signal output pin to control address 16 of flash memory for first DSP.	96	VSS	I		Power supply pin for A/D converter. Connect to ground.
48	ADR171	O	H	Signal output pin to control address 17 of flash memory for first DSP.	97	VOLH	I	H	Measurement input pin of main amplifier output.
49	~DSPRST2	O	L	Reset output pin to DSP IC 2.	98	VREF	I		Reference voltage input pin for A/D converter.
50	~DSPCS2	O	L	Chip select output pin to DSP IC 2.	99	VCC	I		Power supply pin for A/D converter. Apply 5V.
51	FMEM/GRAM2	O	H	2nd DSP memory select output pin. L=FLASH, H=SRAM					

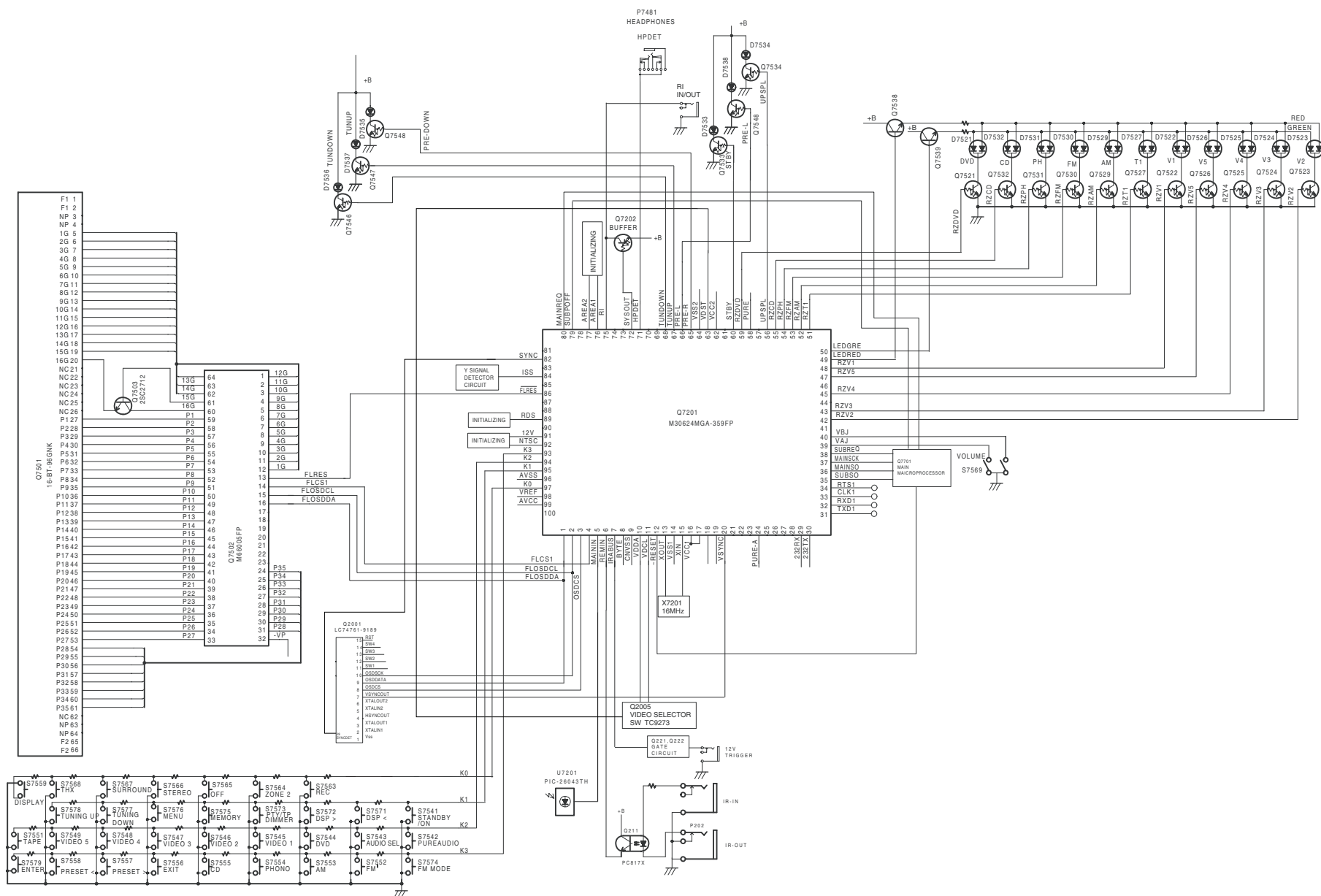
MAIN MICROPROCESSOR CONNECTION DIAGRAM 1



MAIN MICROPROCESSOR CONNECTION DIAGRAM 2



4



SUBMICROPROCESSOR

Terminal Descriptions

No.	Function	I/O	Descriptions	No.	Function	I/O	Descriptions
1	FLOSDDA	O	Serial data output pin for FL tube driver and OSD IC.	50	LEDGRE	O	Power supply control output pin for zone 2 indicator
2	FLOSDCL	O	Serial clock output pin for FL tube driver and OSD IC.	51	RZTP	O	Tape indicator output pin.
3	OSDCS	O	Chip select output pin for OSD IC	52	RZAM	O	AM indicator output pin.
4	FLCS	O	Chip select output pin for FL tube driver	53	RZFM	O	FM indicator output pin.
5	MAININ	I	Signal input pin from remote control	54	RZPH	O	Phono indicator output pin.
6	REMIN	I	Signal input pin from external remote control	55	RZCD	O	CD indicator output pin.
7	Z2RIN	I	Signal input pin from remote control of zone 2. Not used.	58	UPSPL	O	Upsampling frequency indicator control output pin
8	VSS		Power supply pin	58	PURE	O	Pure audio indicator output pin.
10	VDDA	O	Serial data output pin for video function switch IC	59	RZDVD	O	DVD indicator output pin.
11	VDCL	O	Serial clock input pin for video function switch IC	60	STBY	O	STANDBY/RECEIVED indicator output pin.
12	~RESET	I	System reset input.	62	VCC		Power supply pin. Apply 5V.
13	XOUT	O	Connect the ceramic oscillator 16MHz.	63	VDST	O	Strobe output pin for video switch control output pin
14	VSS		Ground pin	64	VSS		Power supply pin. Connect to ground.
15	XIN	I	Connect the ceramic oscillator 16MHz.	71	HPDET	I	Headphone detection input pin.
16	VCC		Power supply pin. Apply 5V.	72	SYSOUT	O	System code output pin
20	VSYNC	I	Vertical synchronizing signal input pin.	75	SYSIN	I	System code input pin.
24	PURE	O	Pure audio relay control output pin. Not used.	76	AREA1	I	Initializing input pin for band area.
29	232RX	I	Receiving input pin of RS232C. Not used.	77	AREA2	I	Initializing input pin for band area.
30	232TX	O	Sending output pin of RS232C. Not used.	79	SUBPOFF	I	Power failure intercept input pin between microprocessors.
31	TXD1	O	Rewrite sending output pin to flash IC.	80	MAINREQ	I	Request input to communicate data between microprocessors.
32	RXD1	I	Rewrite receiving input pin from flash IC.	82	SYNCDDET	I	External synchronizing detection input pin.
33	CLK1	I	Rewrite clock input pin from flash IC.	84	ISS	I	S video signal detection input pin.
34	RTS1	O	Rewrite response output pin to flash IC.	86	FLRES	O	Reset signal output pin to the FL tube driver IC.
35	SUBSO	O	Data sending output pin to communicate between microprocessors.	89	RDS	I	Initializing input pin for RDS broadcast.
36	MAINSO	I	Data receiving input pin to communicate between microprocessors.	90	AMP	I	Initializing input pin for model
37	MAINCL	I	Clock receiving input pin to communicate between microprocessors.	91	I2V	I	Initializing input pin for 12V trigger.
38	SUBREQ	O	Request signal output pin to communicate between microprocessors.	92	NTSC	I	Initializing input terminal for NTSC/PAL.
39	VAJ	I	Pulse signal input terminal A pin from rotary encoder.	93	K3	I	Operation key connection pin.
40	VBJ	I	Pulse signal input terminal B pin from rotary encoder.	94	K2	I	Operation key connection pin.
42	RZV2	O	Video 2 indicator output pin.	95	K1	I	Operation key connection pin.
43	RZV3	O	Video 3 indicator output pin.	96	VSS		Power supply pin for A/D converter.
45	RZV4	O	Video 4 indicator output pin.	97	K0	I	Operation key connection pin.
47	RZV5	O	Video 5 indicator output pin.	98	VREF		Reference voltage input pin for A/D converter.
48	RZV1	O	Video 1 indicator output pin.	99	VCC		Power supply pin for A/D converter. Apply 5V.
49	LEDRED	O	Power supply control output pin for recording indicator.				

ADJUSTMENT AND CONFIRMATION PROCEDURES 1

Idling current adjustment

Before Idling adjustment, turn the trimming resistors R6040, R6041, R6042, R6043, R6044 and R9046 to counter clockwise. Connect the DC voltmeter to sockets P6080, P6081, P6082, P6083, P6084 and P6086.

After turn POWER to ON, adjust the trimming resistors R6040, R6041 and R6042 so that the reading of voltmeter becomes 7.0 mV. (Front and center channels)

Adjust the trimming resistors R6043, R6044 and R6046 so that the reading of voltmeter becomes 5.0 mV. (Surround and surround back channels)

After adjustment, attach the top cover.

Confirm the voltage of points above after about five minutes.

Front and center channels

When less than 9.0 mV, readjust the resistors above so that the voltage becomes 9.0 mV.

When 9.0 mV to 11.0 mV, you are not necessary to adjust.

When more than 11.0 mV, readjust the resistors above so that the voltage becomes 11.0 mV.

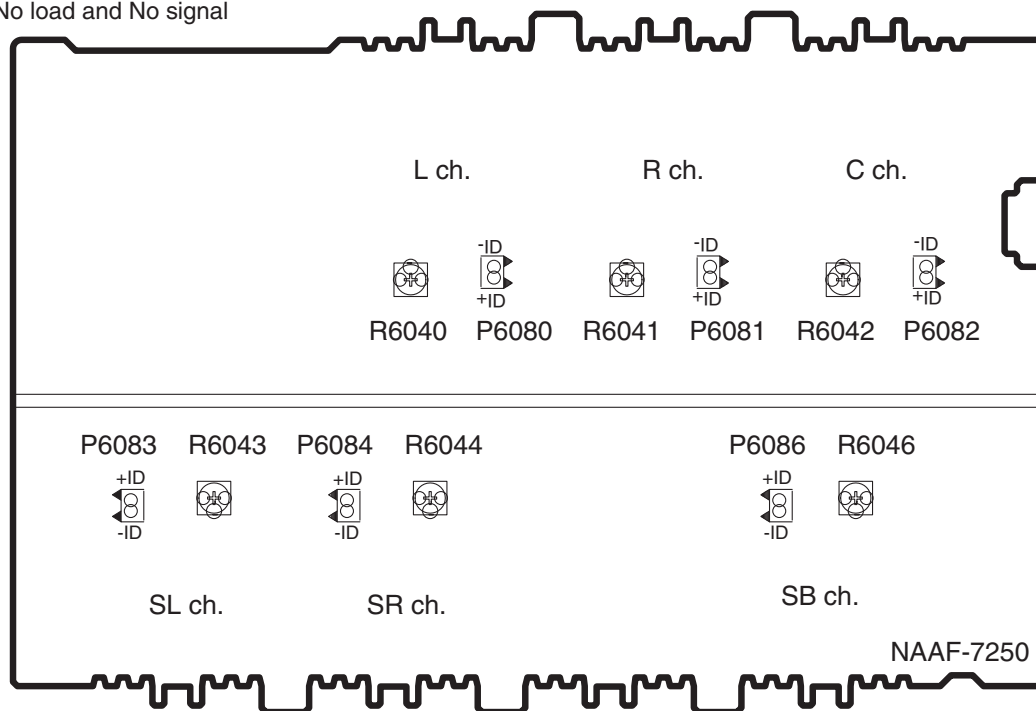
Surround and surround back channels

When less than 6.0 mV, readjust the resistors above so that the voltage becomes 6.0 mV.

When 6.0 mV to 8.0 mV, you are not necessary to adjust.

When more than 8.0 mV, readjust the resistors above so that the voltage becomes 8.0 mV.

Note: No load and No signal



Confirmation of protection circuit

1. Confirmation of operation of speaker relay

Confirm that the speaker relays turn ON approximate. 5 seconds after the power switch is turned ON.

Confirm that the speaker relays turn OFF immediately after the power switch is turned OFF.

2. Confirmation of DC detection circuit

Press and hold down CD button, then press STANDBY/ON and DISPLAY buttons to set the unit to "TEST-1" mode.

After "TEST-1" on the FL tube light on, press VIDEO 1 button to set the unit to "TEST-1-00".

Apply DC 1.5 to 3V to MULTI CHANNEL INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Apply DC -1.5 to -3V to MULTI CHANNEL INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Caution: Don't apply DC voltage more than 1 sec..

ADJUSTMENT AND CONFIRMATION PROCEDURES 2

3. Confirmation of Current detection circuit

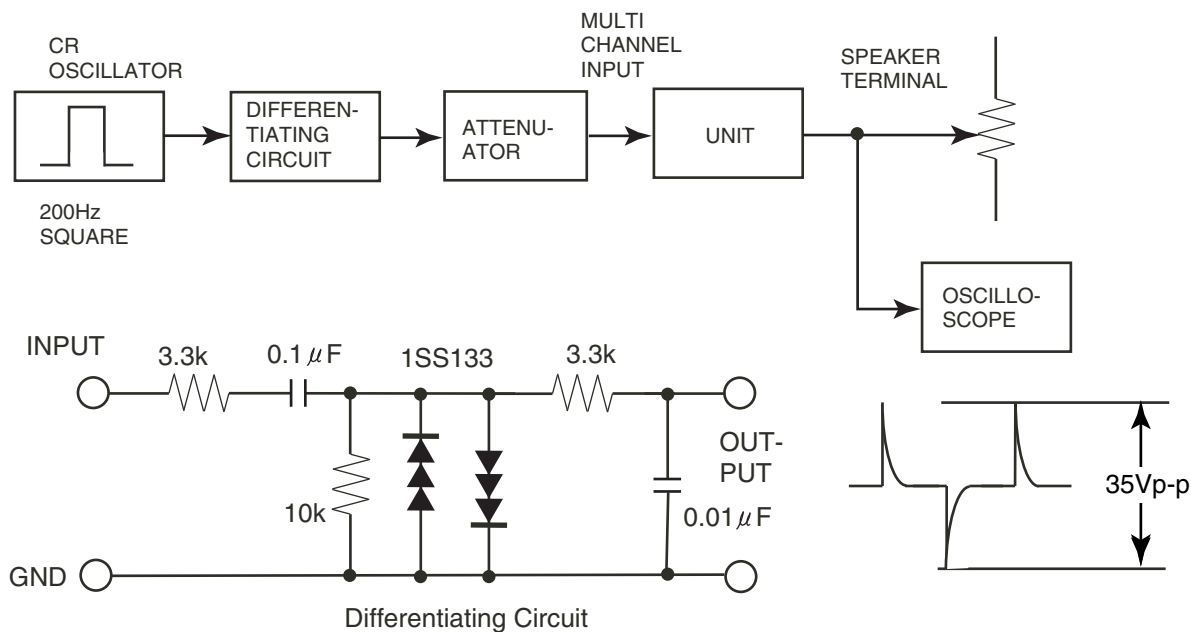
Set the unit to "TEST-1-00".

Connect the differentiating circuit and apply the 200Hz square signal to MULTI CHANNEL INPUT terminal of each channel.

Adjust the attenuator or Volume so that the output level becomes 35V p-p.

Confirm that the speaker relay does not turn OFF when a 3.0 ohm load is connected.

Confirm that the speaker relay turns OFF when a 1.5 ohm load is connected.



Confirmation of fan

Set the unit to "TEST-1-00".

Apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.

Confirm that the fan rotates slow speed after few seconds.

Connect the 1.2 kohm/1W resistor between terminals COM and TH-1 of P6401 with no input signal.

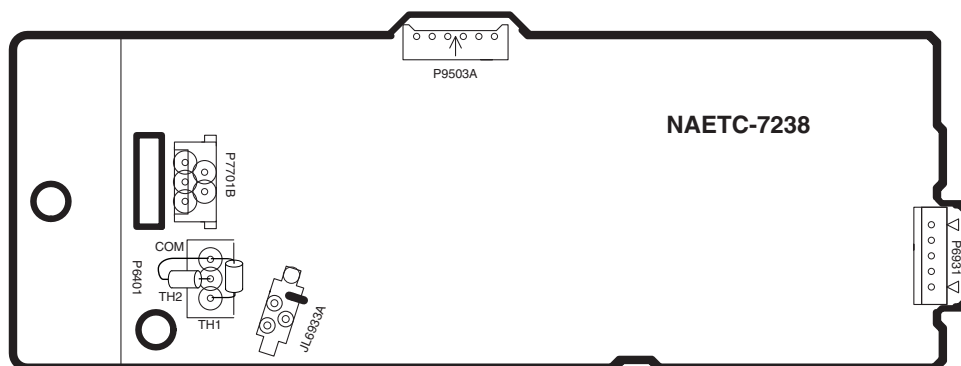
Confirm that the fan rotates slow speed after few seconds.

Next apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.

Confirm that the fan rotates high speed after few seconds.

Connect the 1.2 kohm/1W resistors between terminals COM-TH-1 and COM-TH-2 of P6401 respectively with no input signal.

Confirm that the fan rotates high speed after few seconds.



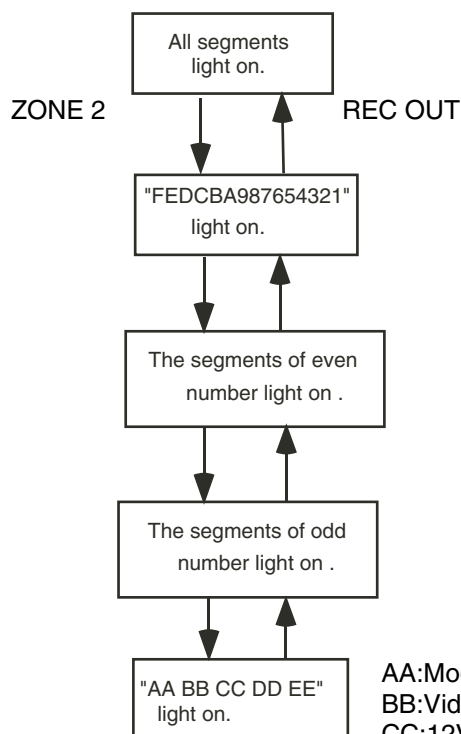
ADJUSTMENT AND CONFIRMATION PROCEDURES 3

Test Mode

1. Turn POWER button on.
2. Press and hold down CD button, then press DISPLAY and STANDBY/ON buttons.
3. After "TEST-1" on the FL tube is displayed, press CD button to set the unit to the test mode of FL tube.

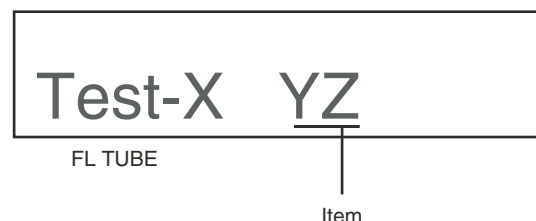
Note: VIDEO 1:TEST-1 VIDEO 2 :TEST-2 ZONE2: UP
VIDEO 3 :TEST-3 VIDEO 4:TEST-4 REC OUT: DOWN

Test mode of FL tube



AA:Model "89":TX-DS898 "79":TX-DS797
 BB:Video Mode "NS": NTSC "PL": PAL AUTO
 CC:12V TRIGGER "TR": Available " ":No available
 DD:RDS "RD": Available " ":No available
 EE:Tuner band EU:Europe US: USA SA:Worldwide JP:Japan

Press POWER button
to finish the test mode of FL tube.



Confirmation of voltage sensor

1. Set the unit to TEST-3-4.
2. Apply the signal 1kHz, -15dBV to the MULTI-CH input. Confirm that the FM STEREO is displayed. Confirm the all channels except SUBWOFFER.
3. When connect the resistor 1.2 kohm/1 W between the terminals COM and TH1 of P6401, confirm that "MEMORY" light on.
4. When change set the unit to "TEST-4-39, confirm that the speaker relays of RL6901 and RL6902 turn off.

Note: No input signal.

Note: No input signal.

Note: No input signal.

A

B

C

D

E

EXPLODED VIEW

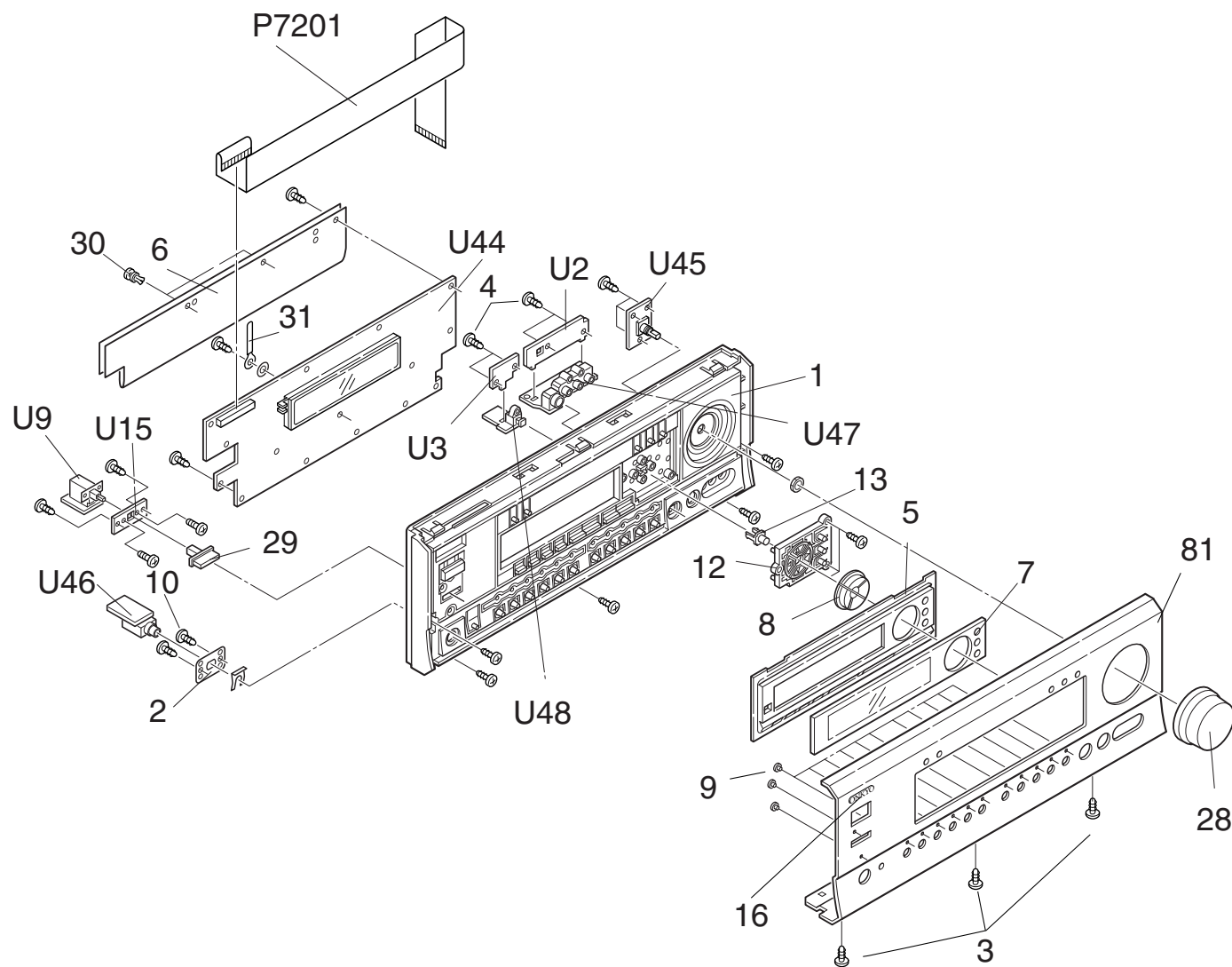
Front panel section

1

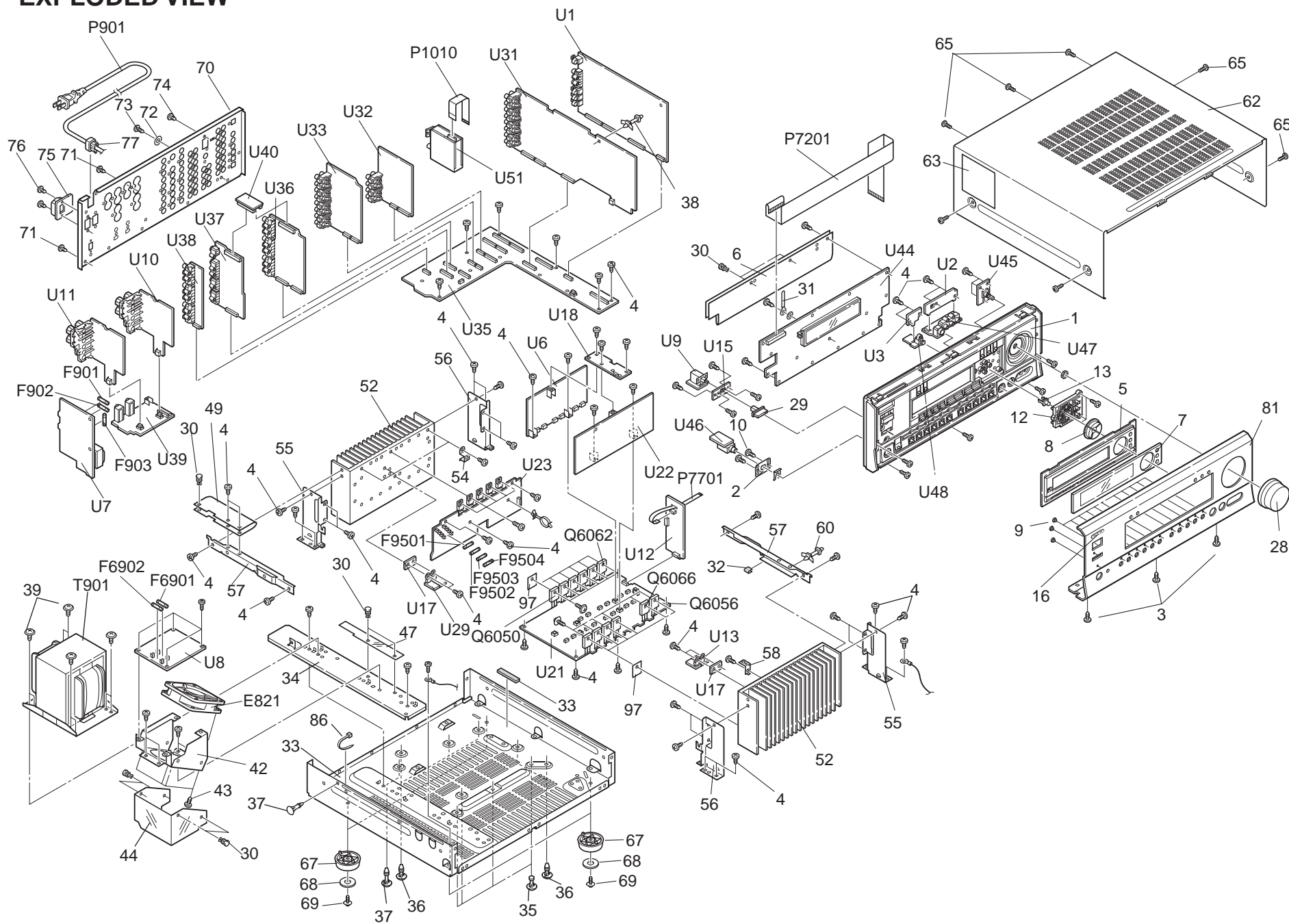
2

3

4



EXPLODED VIEW



EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	27111248	Front bracket 	67	27175319A	Leg
	27111249	Front bracket <S>	68	28141332	Cushion
	27111250	Front bracket <G>	69	831430088	3TTW+8B(BC),Self-tapping screw
2	27141787	Retainer HP	70	27122906	Rear panel <D>
3	838430088	3TTB+8B(BC),Self-tapping screw		27122907	Rear panel <P>
4	838130088	3TTB+8B,Self-taping screw		27122908	Rear panel <WT>
5	27215360	Decorative frame 		27122909	Rear panel <A>
	27215361	Decorative frame <S>		27122910	Rear panel <R>
	27215362	Decorative frame <G>		27122911	Rear panel <GT>
6	27150472	Shield plate, FFC	71	838430088	3TTB+8B(BC),Self-tapping screw
7	28191942	Clear plate 	72	87643010	W3*10F(BC),Flat washer
	28191943	Clear plate <S/G>	73	838930088	3TTB+8B(UN),Self-tapping screw
8	28325964A	Knob CL	74	838430068	3TTB+6B(BC),Self-tapping screw
9	28198778	Facet	75	27191130	⚠ Holder, outlet <R>
10	82143010	3P+10FN(BC),Pan head screw	76	838440089	4TTB+8C(BC),Self-tapping screw <O>
12	28325965	Knob, tuning	77	27300750	⚠ Bushing cord
13	28330142	Cap, tuning	81	27212349A	Front panel <D/WT/A>
14	27270375	Spacer		27212350A	Front panel <P>
16	28135244	Badge 		27212351A	Front panel <S>
	28135245	Badge <G/S>		27212352A	Front panel <G>
28	28325898	Knob, volume 	86	260208	Wire tie
	28325899	Knob, volume <S>	97	223025	AC262,Isolated sheet
	28325900	Knob, volume <G>	E821	24502310	D09T-24PG10(EX),Fan
29	28325497A	Knob, power 	F6901,F6902	252199	10A-UL, Fuse <D>
	28325547A	Knob, power <S>		252100	10A-EAK, Fuse <O>
	28325499A	Knob, power <G>	F901	252199	⚠ 10A-UL, Fuse <D/WT/WR>
30	880016	P3035B,Plastic rivet	F902	252077,	⚠ 4A-SE-EAK,
31	27255004	CS-1U,Clip		252243 or	⚠ 4A-SE-TL250V or
32	29110083	Tape, cloth		252277	⚠ 4A-SE-TL250V,Fuse <O>
33	27100408	Chassis	F903	252075,	⚠ 2.5A-SE-EAK,
34	27130870	Bracket PT		252241 or	⚠ 2.5A-SE-TL250V or
35	27190965	Holder		252275	⚠ 2.5A-SE-TL250V,Fuse <O>
36	27190693A	KGLS-6RF,Holder	F9501,F9502	252160 or	⚠ 2.5A-UL/T-237 or
37	27190266	KGLS-12RF,Holder		252254	⚠ 2.5A-T/UL-ST2,Fuse <D>
38	27190164	KGLS-14S,Holder		252075,	⚠ 2.5A-SE-EAK,
39	830440089	4TTC+8C(BC),Self-tapping screw		252241 or	⚠ 2.5A-SE-TL250V or
41	28141484	Cushion		252275	⚠ 2.5A-SE-TL250V,Fuse <O>
42	27141797	Retainer, fan	F9503,F9504	252158 or	⚠ 1.6A-UL/T-237 or
43	838450108	5TTB+10B(BC),Self-tapping screw		252252	⚠ 1.6A-T/UL-ST2,Fuse <D>
44	27150470	Shield plate, fan		252073 or	⚠ 1.6A-SE-EAK or
47	27150471	Shield plate, amp.		252239	⚠ 1.6A-SE-TL250V,Fuse <O>
49	27150474	Shield plate, wire	P1010	2047151012	NCFC7-151012,Flat cable
52	27160489	Heat sink	P7201	2047335512	NCFC7-335512,Flat cable
53	801433	3SMS8W.SW+14B(BC),Special screw	P7701	2047051012	NCFC7-051012,Flat cable
54	27141681	Retainer, PCB	P901	253279HIT or	⚠ AS-UC-2#18 or
55	27141798	Retainer, heat sink R		253280VOL	⚠ AS-UC-2#18,Power supply cord <D>
56	27141799	Retainer, heat sink L		253233KAW	⚠ AS-CEE-2,Power supply cord <P/WT/GT>
57	27130869	Bracket, heat sink		253197HIT	⚠ AS-SAA,Power supply cord <A>
58	27130745	Bracket		253267KAW,	⚠ AS-CCEE,
60	27190470	KGLS-18S,Holder		253285HIT or	⚠ AS-CCEE or
61	838430107	3TTB+10S(BC),Self-tapping screw		253286VOL	⚠ AS-CCEE,Power supply cord <R>
62	28184817	Top cover 	Q6050-Q6054	2202823 or	* 2SC5200-O or
	28184818	Top cover <S>	Q6056	2202822	* 2SC5200-R,Transistor
	28184819	Top cover <G>	Q6060-Q6064	2202813 or	* 2SA1943-O or
63	29362959	Label	Q6066	2202812	* 2SA1943-R,Transistor
65	838430088	3TTB+8B(BC),Self-tapping screw 			
	838930088	3TTB+8B(UN),Self-tapping screw <S/G>			

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
T901	2301536	⚠ NPT-1421D,Power transformer <D>	U15	1A906541-1N	NAETC-7241-1N,PC board for holder <D>
	2301537	⚠ NPT-1421P,Power transformer <P/A>		1A906541-1O	NAETC-7241-1O,PC board for holder <P>
	2301538	⚠ NPT-1421DG,Power transformer <WT/R/GT>		1A906541-1P	NAETC-7241-1P,PC board for holder <R>
U1	1A906526-1N	NADG-7226-1N, Main circuit PC board ass'y <D>		1A906541-1Q	NAETC-7241-1Q,PC board for holder<WT>
	1A906526-1O	NADG-7226-1O, Main circuit PC board ass'y <P>		1A906541-1R	NAETC-7241-1R,PC board for holder <GT>
	1A906526-1R	NADG-7226-1R, Main circuit PC board ass'y <WT/A/R/GT>		1A906541-1U	NAETC-7241-1U,PC board for holder <A>
U6	1A906532-1N	NAAF-7232-1N, F/C driver circuit PC board ass'y <D>	U17	1A906543-1N	NAETC-7243-1N,PC board for holder <D>
	1A906532-1O	NAAF-7232-1O, F/C driver circuit PC board ass'y <P>		1A906543-1O	NAETC-7243-1O,Ground PC board for holder <P>
	1A906532-1P	NAAF-7232-1P, F/C driver circuit PC board ass'y <R>		1A906543-1P	NAETC-7243-1P,PC board for holder <R>
	1A906532-1Q	NAAF-7232-1Q, F/C driver circuit PC board ass'y <WT>		1A906543-1Q	NAETC-7243-1Q,PC board for holder <WT>
	1A906532-1R	NAAF-7232-1R, F/C driver circuit PC board ass'y <GT>		1A906543-1R	NAETC-7243-1R,PC board for holder <GT>
U7	1A906532-1U	NAAF-7232-1U, F/C driver circuit PC board ass'y <A>	U18	1A906543-1U	NAETC-7243-1U,PC board for holder <A>
	1A906533-1N	NAPS-7233-1N,Primary circuit PC board ass'y <D>		1A906544-1N	NAETC-7244-1N,Ground PC board ass'y <D>
	1A906533-1O	NAPS-7233-1O,Primary circuit PC board ass'y <P>		1A906544-1O	NAETC-7244-1O,Ground PC board ass'y <P>
	1A906533-1P	NAPS-7233-1P,Primary circuit PC board ass'y <R>		1A906544-1P	NAETC-7244-1P,Ground PC board ass'y <R>
	1A906533-1Q	NAPS-7233-1Q,Primary circuit PC board ass'y <WT>		1A906544-1Q	NAETC-7244-1Q,Ground PC board ass'y <WT>
U8	1A906533-1R	NAPS-7233-1R,Primary circuit PC board ass'y <GT>	U21	1A906544-1R	NAETC-7244-1R,Ground PC board ass'y <GT>
	1A906533-1U	NAPS-7233-1U,Primary circuit PC board ass'y <A>		1A906544-1U	NAETC-7244-1U,Ground PC board ass'y <A>
	1A906534-1N	NAPS-7234-1N,Rectifier circuit PC board ass'y <D>		1A906550-2A	NAAF-7250-2A,Power amplifier driver PC board ass'y <D>
	1A906534-1O	NAPS-7234-1O,Rectifier circuit PC board ass'y <P>		1A906550-2B	NAAF-7250-2B,Power amplifier driver PC board ass'y <O>
	1A906534-1P	NAPS-7234-1P,Rectifier circuit PC board ass'y <R>	U22	1A906551-2A	NAAF-7251-2A,Power amplifier driver PC board ass'y <D>
U9	1A906534-1Q	NAPS-7234-1Q,Rectifier circuit PC board ass'y <WT>		1A906551-2B	NAAF-7251-2B,Power amplifier driver PC board ass'y <O>
	1A906534-1R	NAPS-7234-1R,Rectifier circuit PC board ass'y <GT>	U23	1A906552-2A	NAPS-7252-2A,Power supply circuit PC board ass'y <D>
	1A906534-1U	NAPS-7234-1U,Rectifier circuit PC board ass'y <A>		1A906552-2B	NAPS-7252-2B,Power supply circuit PC board ass'y <O>
	1A906535-1N	NASW-7235-1N,Power switch PC board ass'y <D>	U29	1A906558-2A	NAETC-7258-2A,Thermal detector circuit PC board ass'y <D>
	1A906535-1O	NASW-7235-1O,Power switch PC board ass'y <P>		1A906558-2B	NAETC-7258-2B,Thermal detector circuit PC board ass'y <O>
U10	1A906535-1P	NASW-7235-1P,Power switch PC board ass'y <R>	U31	1A906562-1N	NAAF-7262-1N,Preamplifier circuit PC board ass'y <D>
	1A906535-1Q	NASW-7235-1Q,Power switch PC board ass'y <WT>		1A906562-1O	NAAF-7262-1O,Preamplifier circuit PC board ass'y <P>
	1A906535-1R	NASW-7235-1R,Power switch PC board ass'y <GT>	U32	1A906562-1P	NAAF-7262-1P,Preamplifier circuit PC board ass'y <PT/A/R/GT>
	1A906535-1U	NASW-7235-1U,Power switch PC board ass'y <A>		1A906563-1N	NAAF-7263-1N,Audio terminal PC board ass'y <D>
	1A906536-1N	NAETC-7236-1N,Speaker terminal F/C PC board ass'y <D>		1A906563-1O	NAAF-7263-1O,Audio terminal PC board ass'y <P>
U11	1A906536-1O	NAETC-7236-1O,Speaker terminal F/C PC board ass'y <P>		1A906563-1P	NAAF-7263-1P,Audio terminal PC board ass'y <PT/A/R/GT>
	1A906536-1P	NAETC-7236-1P,Speaker terminal F/C PC board ass'y <R>	U33	1A906564-1N	NAAF-7264-1N,Video terminal PC board ass'y <D>
	1A906536-1Q	NAETC-7236-1Q,Speaker terminal F/C PC board ass'y <WT>		1A906564-1O	NAAF-7264-1O,Video terminal PC board ass'y <P>
	1A906536-1R	NAETC-7236-1R,Speaker terminal F/C PC board ass'y <GT>		1A906564-1P	NAAF-7264-1P,Video terminal PC board ass'y <PT/A/R/GT>
	1A906536-1U	NAETC-7236-1U,Speaker terminal F/C PC board ass'y <A>	U35	1A906567-1N	NAAR-7267-1N,Connector PC board ass'y, <D>
U12	1A906537-1N	NAETC-7237-1N,Speaker terminal SR/SB PC board ass'y <D>		1A906567-1O	NAAR-7267-1O,Connector PC board ass'y, <O>
	1A906537-1O	NAETC-7237-1O, Speaker terminal SR/SB PC board ass'y <P>	U36	1A906568-1N	NAVD-7268-1N,Composite video circuit PC board ass'y <D>
	1A906537-1P	NAETC-7237-1P, Speaker terminal SR/SB PC board ass'y <R>		1A906568-1O	NAVD-7268-1O,Composite video circuit PC board ass'y <O>
	1A906537-1Q	NAETC-7237-1Q, Speaker terminal SR/SB PC board ass'y <WT>	U37	1A906569-1N	NAVD-7269-1N,,S video circuit PC board ass'y <D>
	1A906537-1R	NAETC-7237-1R, Speaker terminal SR/SB PC board ass'y <GT>		1A906569-1O	NAVD-7269-1O,,S video circuit PC board ass'y <O>
U13	1A906537-1U	NAETC-7237-1U, Speaker terminal SR/SB PC board ass'y <A>	U38	1A906570-1N	NAVD-7270-1N,Component video terminal PC board ass'y <D>
	1A906538-1N	NAETC-7238-1N,Fan drive circuit PC board ass'y <D>		1A906570-1O	NAVD-7270-1O,Component video terminal PC board ass'y <O>
	1A906538-1O	NAETC-7238-1O,Fan drive circuit PC board ass'y <P>	U39	1A906572-1N	NAETC-7272-1N,RI terminal PC board ass'y <D>
	1A906538-1P	NAETC-7238-1P,Fan drive circuit PC board ass'y <R>		1A906572-1O	NAETC-7272-1O,RI terminal PC board ass'y <O>
	1A906538-1Q	NAETC-7238-1Q,Fan drive circuit PC board ass'y <WT>	U40	1A906573-1N	NAETC-7273-1N,PC board for holder <D>
U13	1A906538-1R	NAETC-7238-1R,Fan drive circuit PC board ass'y <GT>		1A906573-1O	NAETC-7273-1O,PC board for holder <O>
	1A906538-1U	NAETC-7238-1U,Fan drive circuit PC board ass'y <A>	U44	1A906530-1A	NADIS-7330-1A,Display circuit PC board ass'y <D>
	1A906539-1N	NAETC-7239-1N,Thermal detector circuit PC board ass'y <D>		1A906530-1B	NADIS-7330-1B,Display circuit PC board assay <P>
	1A906539-1O	NAETC-7239-1O,Thermal detector circuit PC board ass'y <P>		1A906530-1C	NADIS-7330-1C,Display circuit PC board ass'y <A>
	1A906539-1P	NAETC-7239-1P,Thermal detector circuit PC board ass'y <R>		1A906530-1D	NADIS-7330-1D,Display circuit PC board ass'y <WT>
	1A906539-1Q	NAETC-7239-1Q,Thermal detector circuit PC board ass'y <WT>		1A906530-1E	NADIS-7330-1E,Display circuit PC board ass'y <G> <GT/A>
	1A906539-1R	NAETC-7239-1R,Thermal detector circuit PC board ass'y <GT>		1A906530-1F	NADIS-7330-1F,Display circuit PC board ass'y <G> <WT/R>
	1A906539-1U	NAETC-7239-1U,Thermal detector circuit PC board ass'y <A>		1A906530-1G	NADIS-7330-1G,Display circuit PC board ass'y <S> <P>

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

EXPLODED VIEW-PARTS LIST 3

REF. NO.	PART NO.	DESCRIPTION
U45	1A906531-1A	NASW-7331-1A,Volume PC board ass'y <D>
	1A906531-1B	NASW-7331-1B,Volume PC board ass'y <P>
	1A906531-1C	NASW-7331-1C,Volume PC board ass'y <A>
	1A906531-1D	NASW-7331-1D,Volume PC board ass'y <WT>
	1A906531-1E	NASW-7331-1E,Volume PC board ass'y <G> <GT/A>
	1A906531-1F	NASW-7331-1F,Volume PC board ass'y <G> <WT/R>
	1A906531-1G	NASW-7331-1G,Volume PC board ass'y <S> <P>
U46	1A906332-1A	NAETC-7332-1A,Headphone terminal PC board ass'y <D>
	1A906332-1B	NAETC-7332-1B,Headphone terminal PC board ass'y <P>
	1A906332-1C	NAETC-7332-1C,Headphone terminal PC board ass'y <A>
	1A906332-1D	NAETC-7332-1D,Headphone terminal PC board ass'y <WT>
	1A906332-1E	NAETC-7332-1E,Headphone terminal PC board ass'y <G> <GT/A>
	1A906332-1F	NAETC-7332-1F,Headphone terminal PC board ass'y <G> <WT/R>
	1A906332-1G	NAETC-7332-1G,Headphone terminal PC board ass'y <S> <P>
U47	1A906527-1N	NAAF-7227-1N,Front video PC board ass'y <D>
	1A906527-1O	NAAF-7227-1O,Front video PC board ass'y <P>
	1A906527-1R	NAAF-7227-1P,Front video PC board ass'y <WT/A/GT/R>
U48	1A906528-1N	NADG-7228-1N,Front video 2 PC board ass'y <D>
	1A906528-1O	NADG-7228-1O,Front video 2 PC board ass'y <P>
	1A906528-1R	NADG-7228-1P,Front video 2 PC board ass'y <WT/A/GT/R>
U51	240138A or	ENG06501QR or
	240134A	TFCE1U114B,Tuner unit <D>
	240139A or	ENG07501QR or
	240135	TFCE1E512A,Tuner unit <P/A/WT/GT/R>

NOTE: : Black model only
 <S>: Silver model only
 <G>: Golden model only
 <D>: 120V model only
 <P>: European model only
 <WT>:: Worldwide model only
 <GT>: 220V model only
 <A>: Australian model only
 <R>: Chinese model only
 <O>:Except 120V model

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EXPLODED VIEW

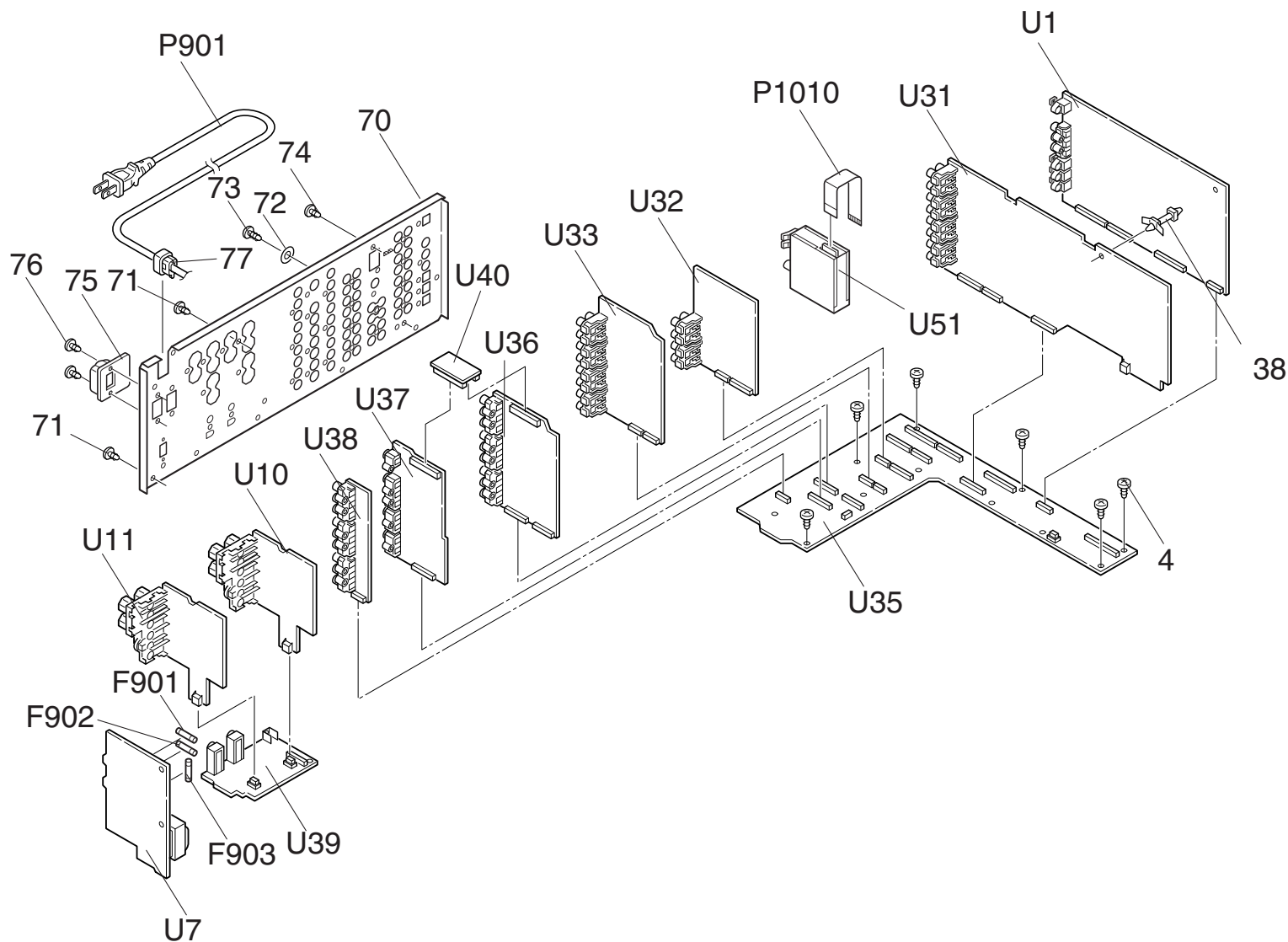
Rear panel section

1

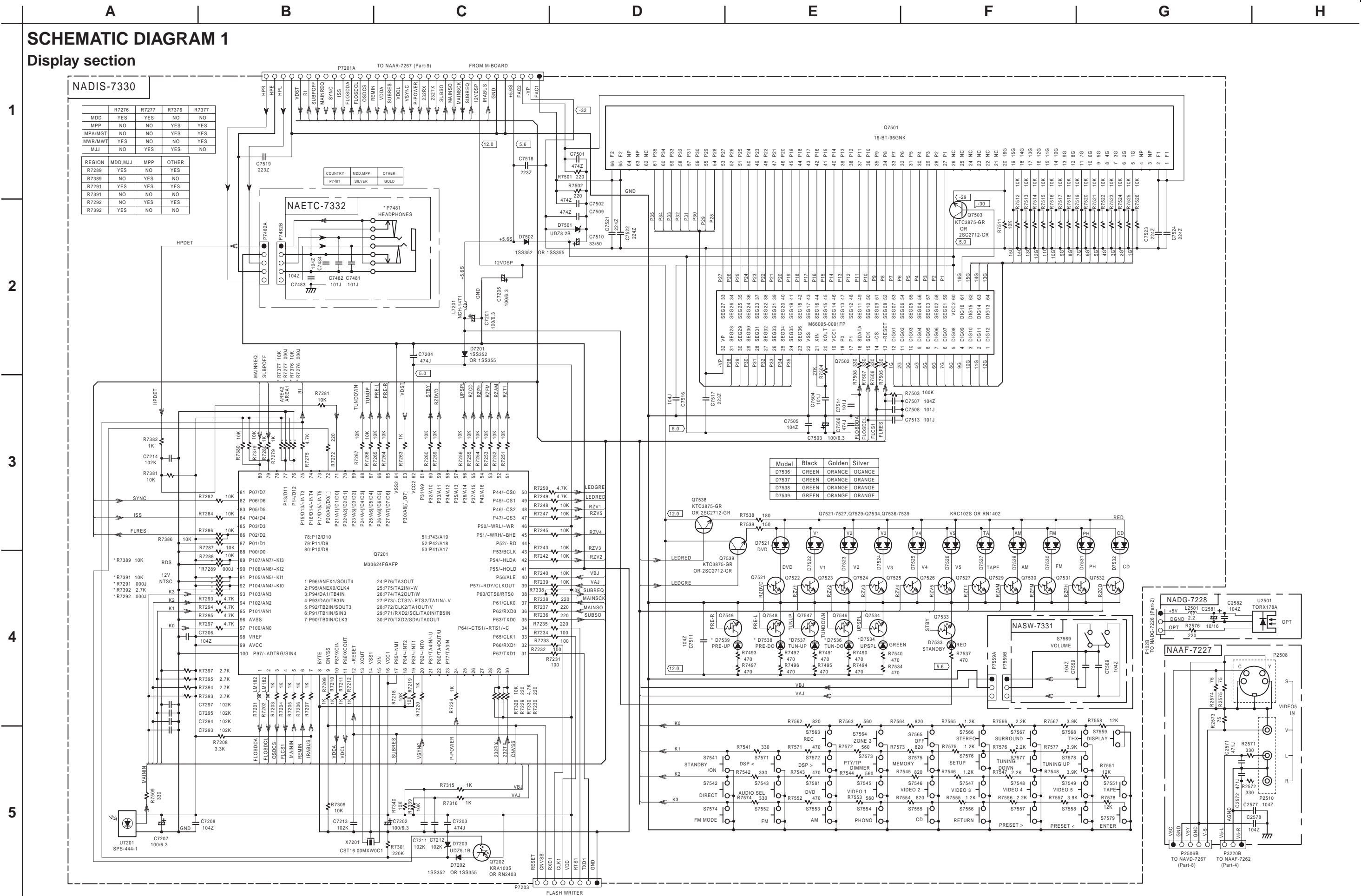
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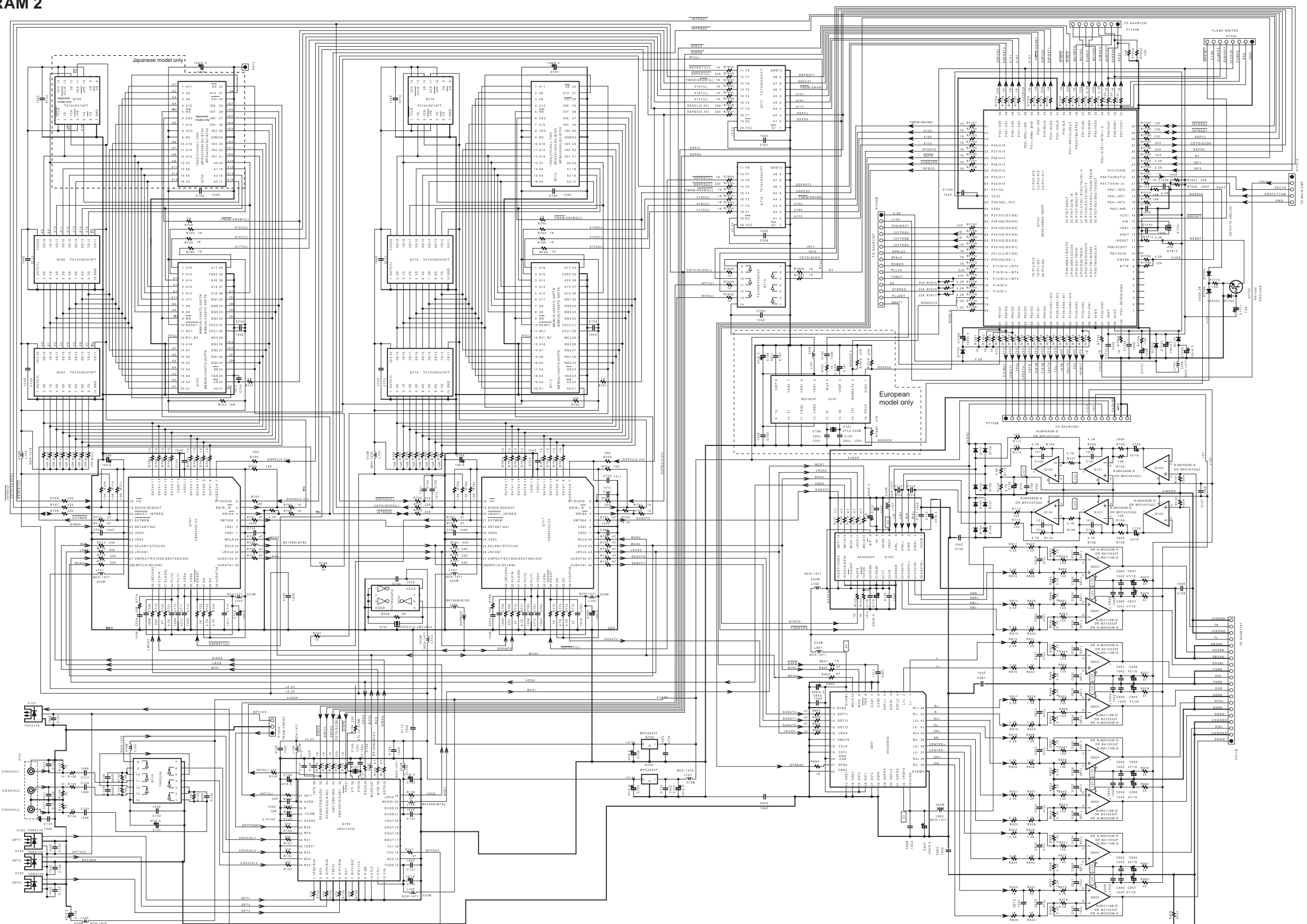
4



Display section



**DSP & Main
microprocessor
sections**



SCHEMATIC DIAGRAM 3

Audio I/O section

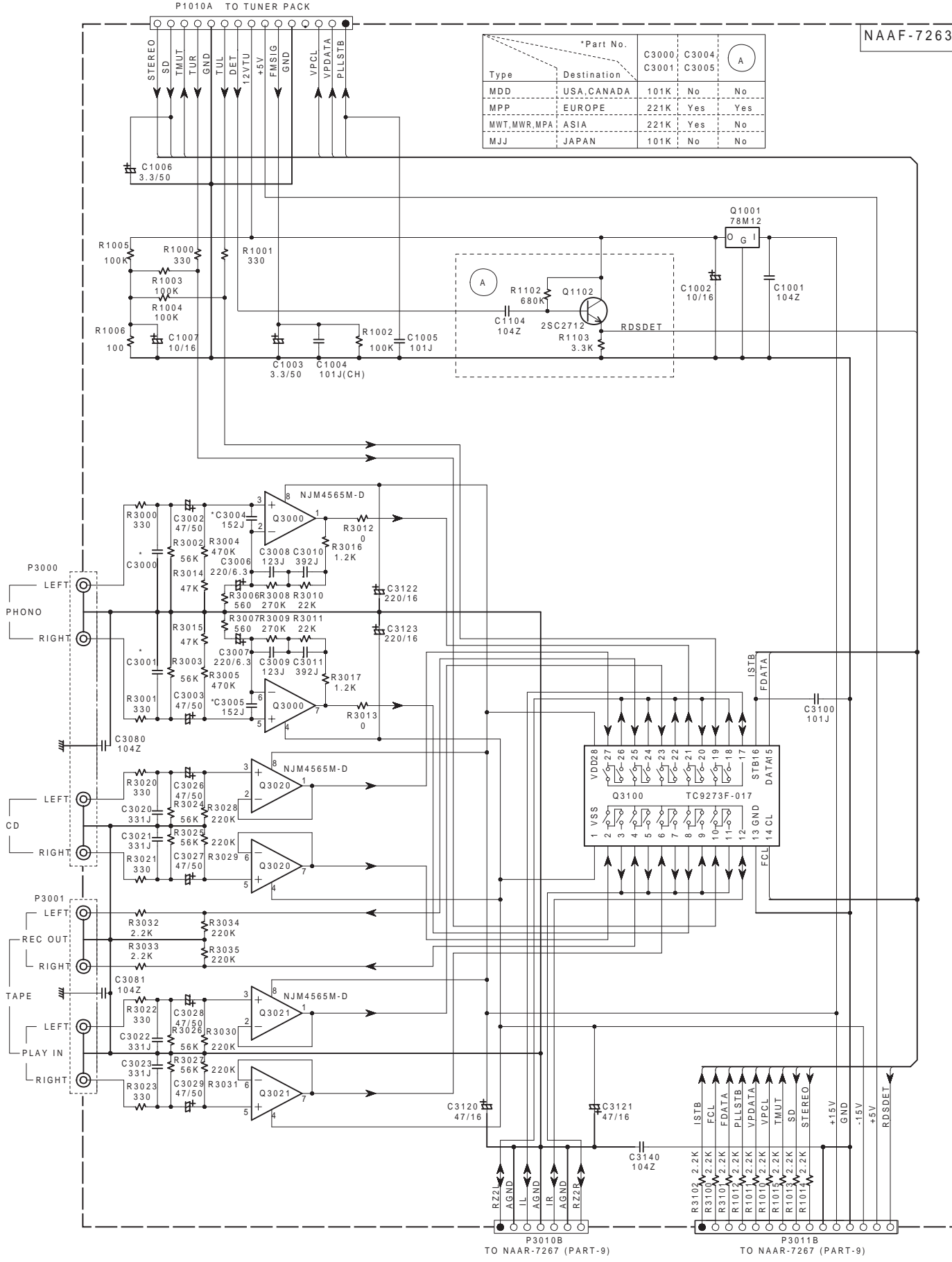
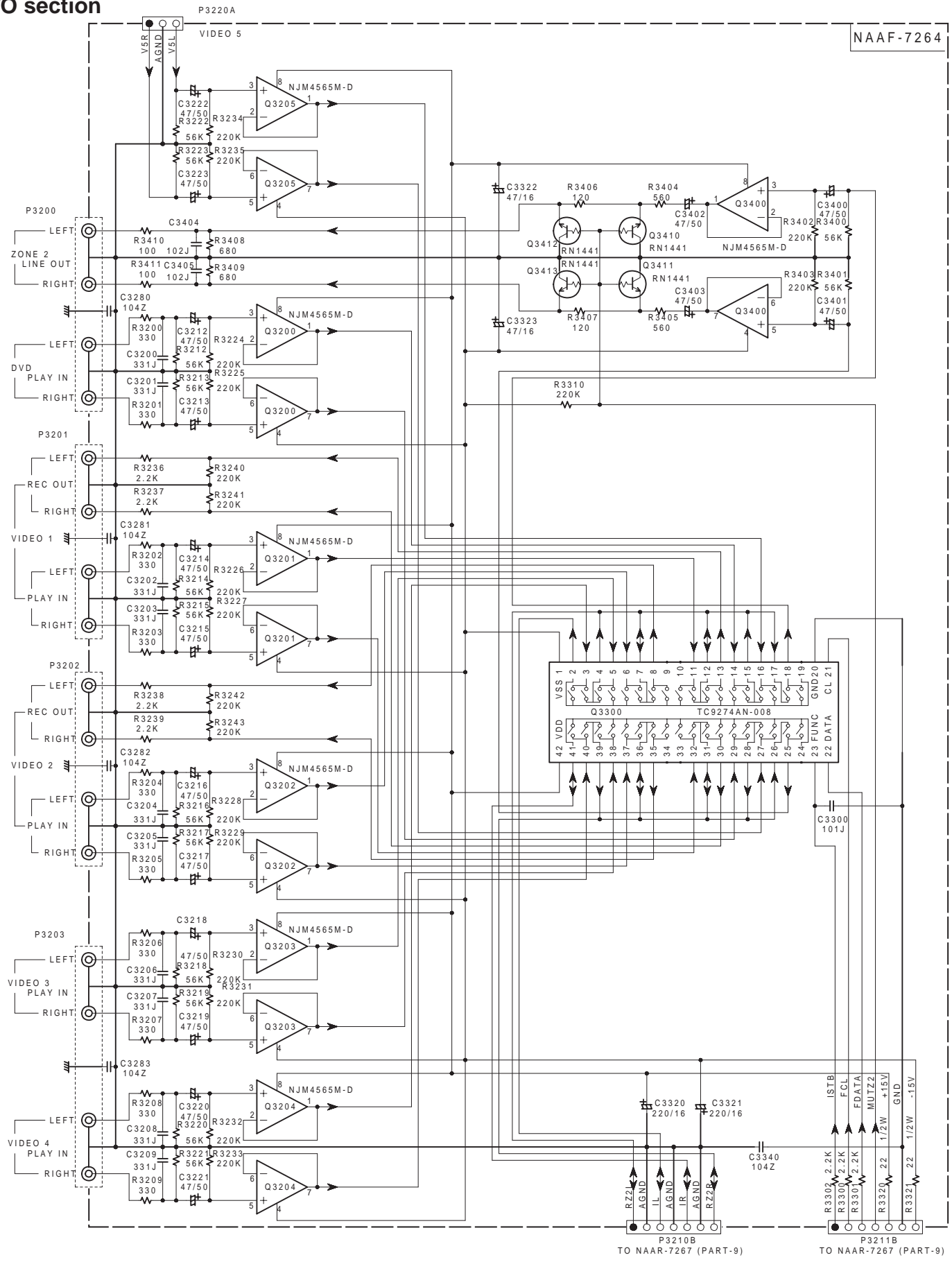
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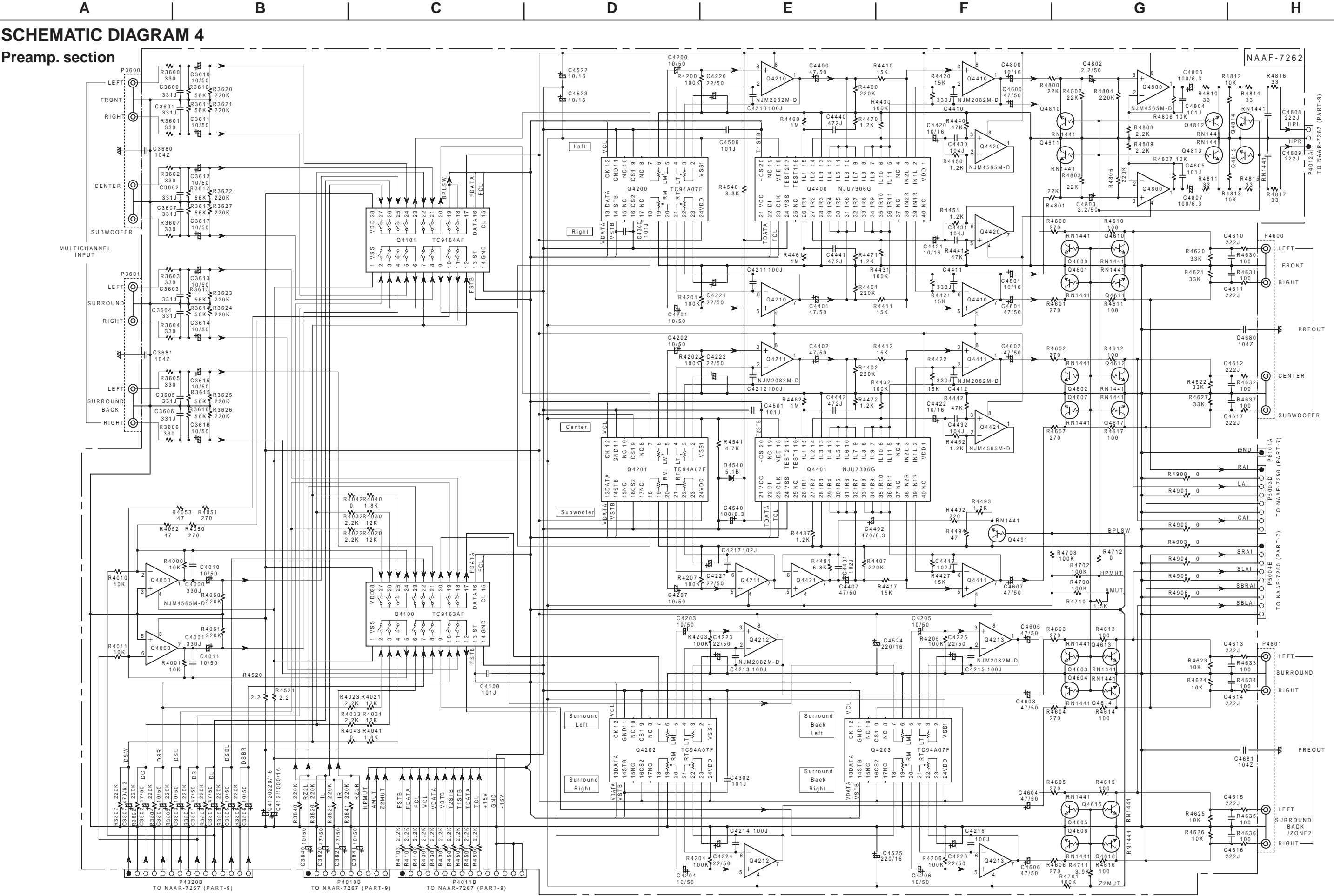
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Type	Destination	*Part No.	C3000 C3001	C3004 C3005	(A)
MDD	USA, CANADA	101K	No	No	
MPP	EUROPE	221K	Yes	Yes	
MWT, MWR, MPA	ASIA	221K	Yes	No	
MJJ	JAPAN	101K	No	No	



SCHEMATIC DIAGRAM 5
Power amp.section

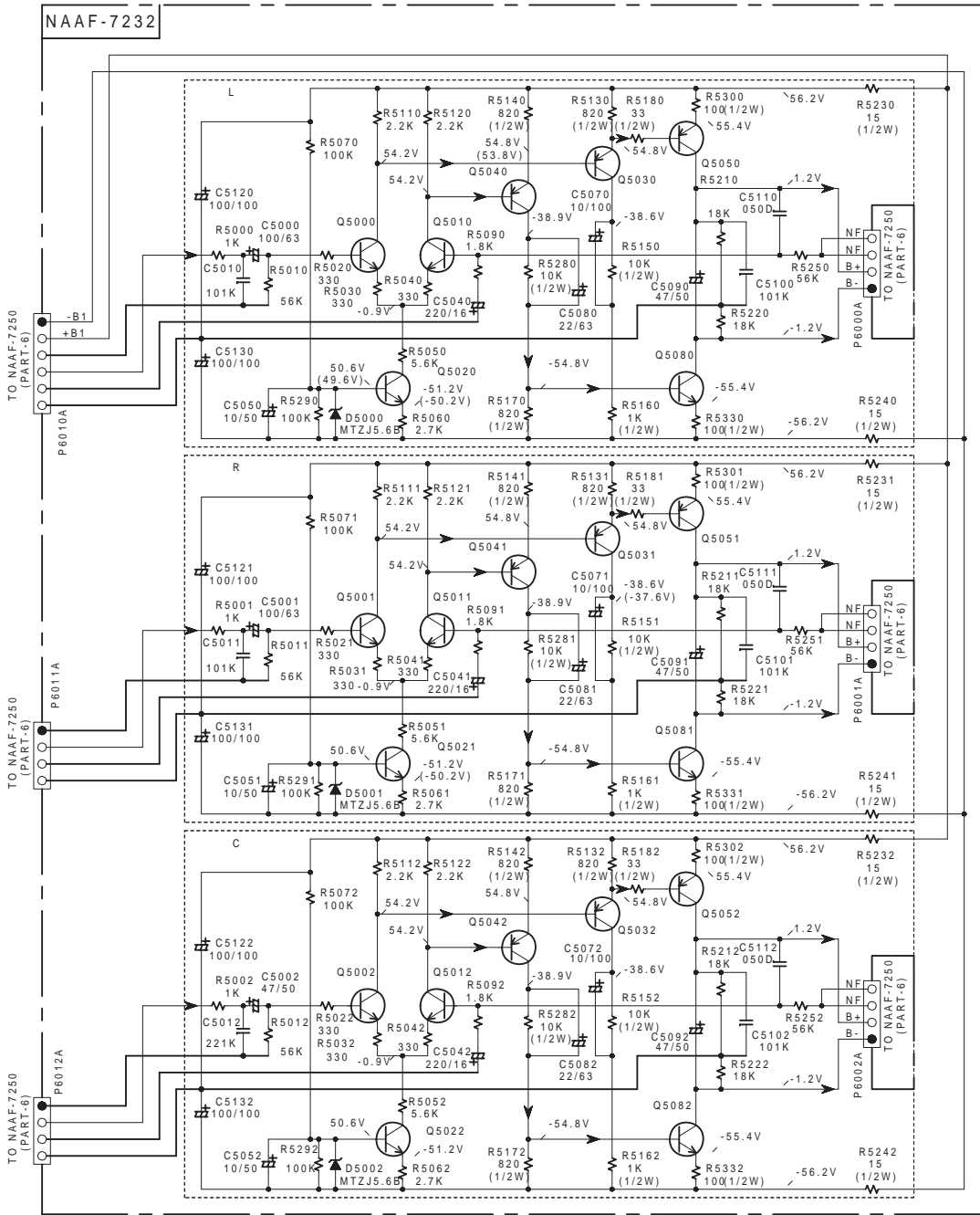
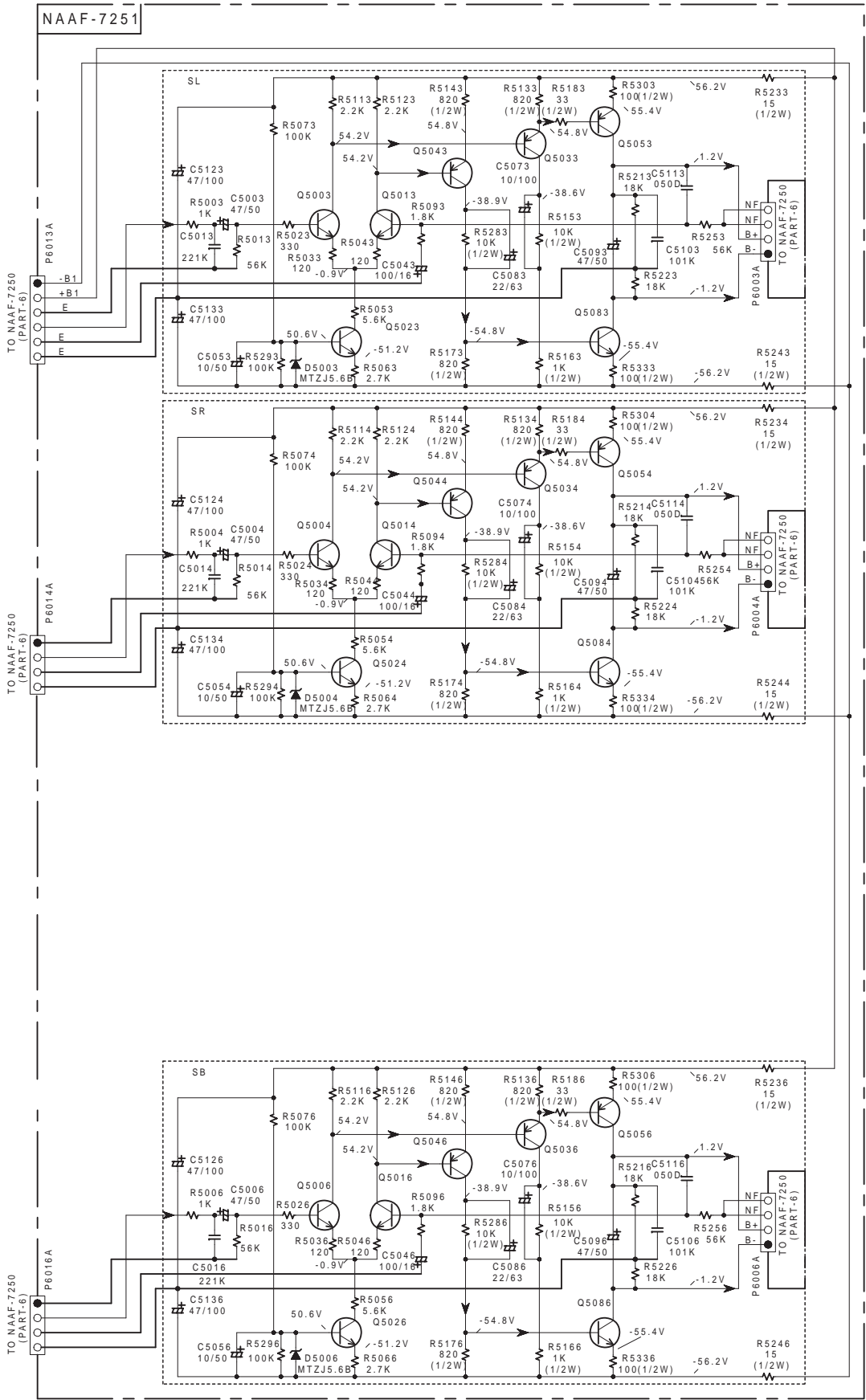
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SEMICONDUCTORS	
NO.	
Q5000-06, 5010-16	KTC3200-BL OR 2SC1775A-E, F OR 2SC1845-E
Q5020-26	KTC3200-BL OR 2SC1775A-E, F OR 2SC1845-E
Q5030-36, 5040-46, 5050-56, 5070-76	KTA1024-Y, O OR 2SA949-Y, O
Q5060-66, 5080-86	KTC3206-Y, O OR 2SC2229-Y, O

SCHEMATIC DIAGRAM 6
Power amplifier section 2

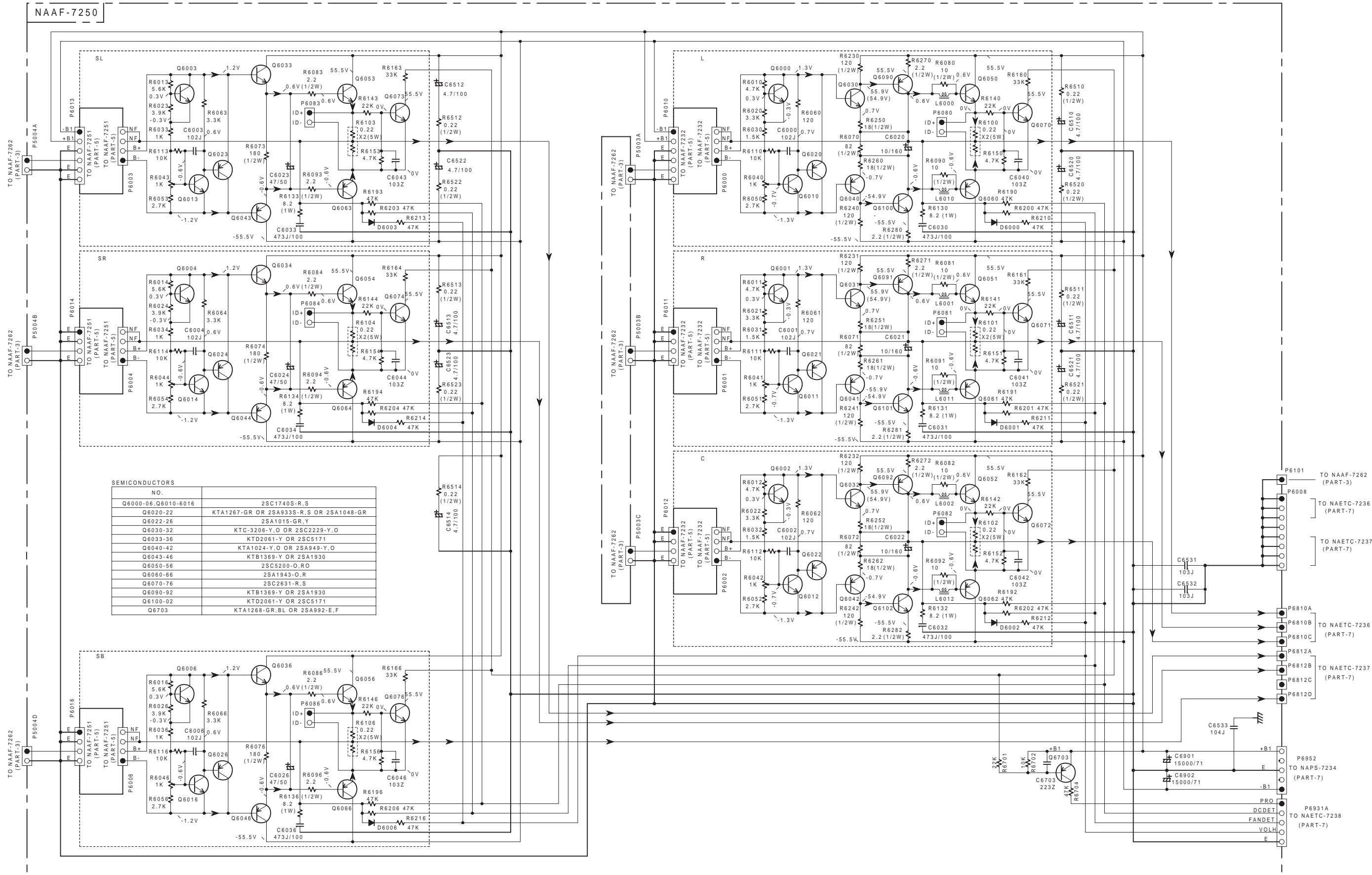
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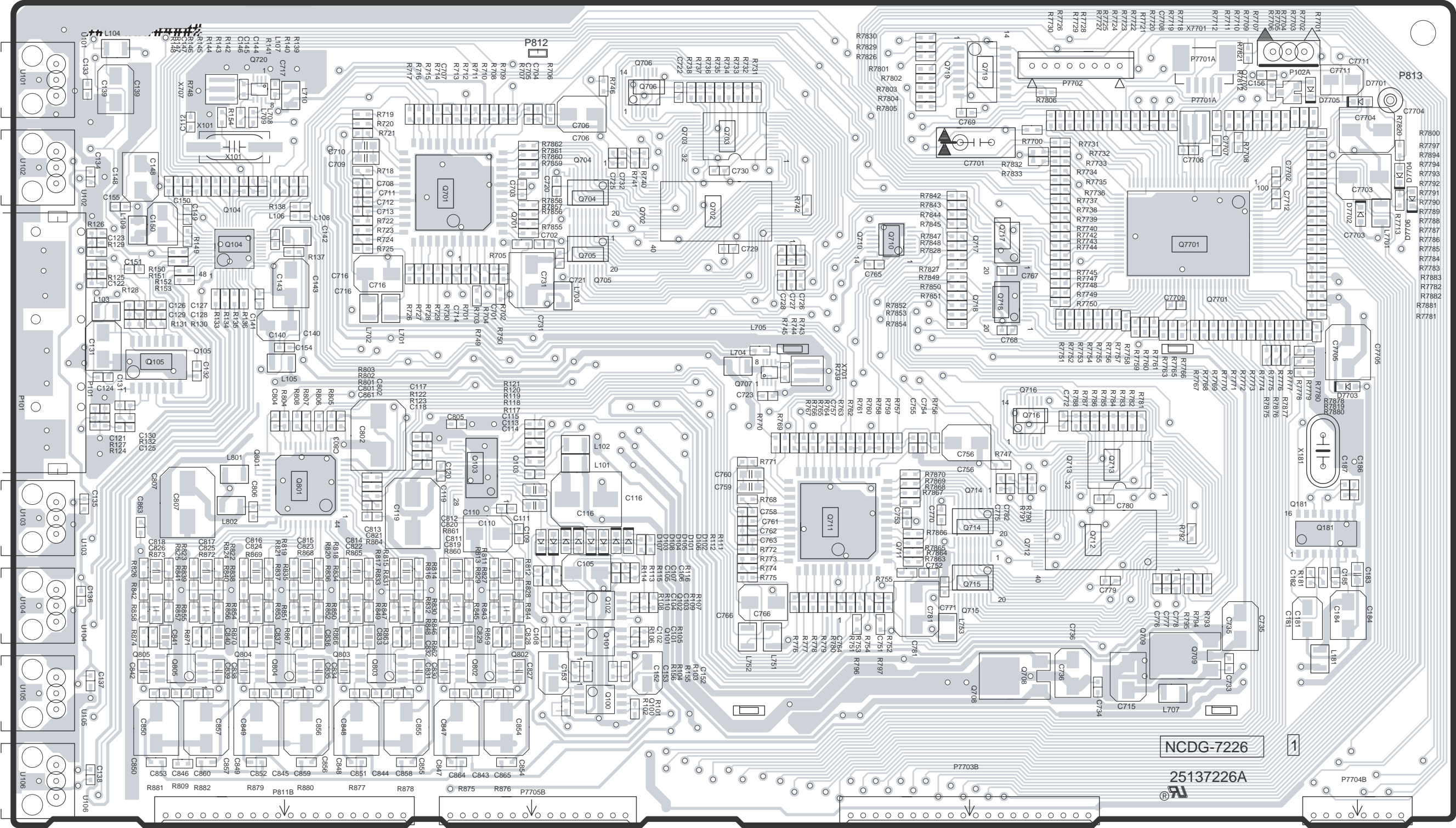
55

Componet video and mother sections



PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE B 2

Soldering side A: Parts & Patterns Soldering side B: Patterns

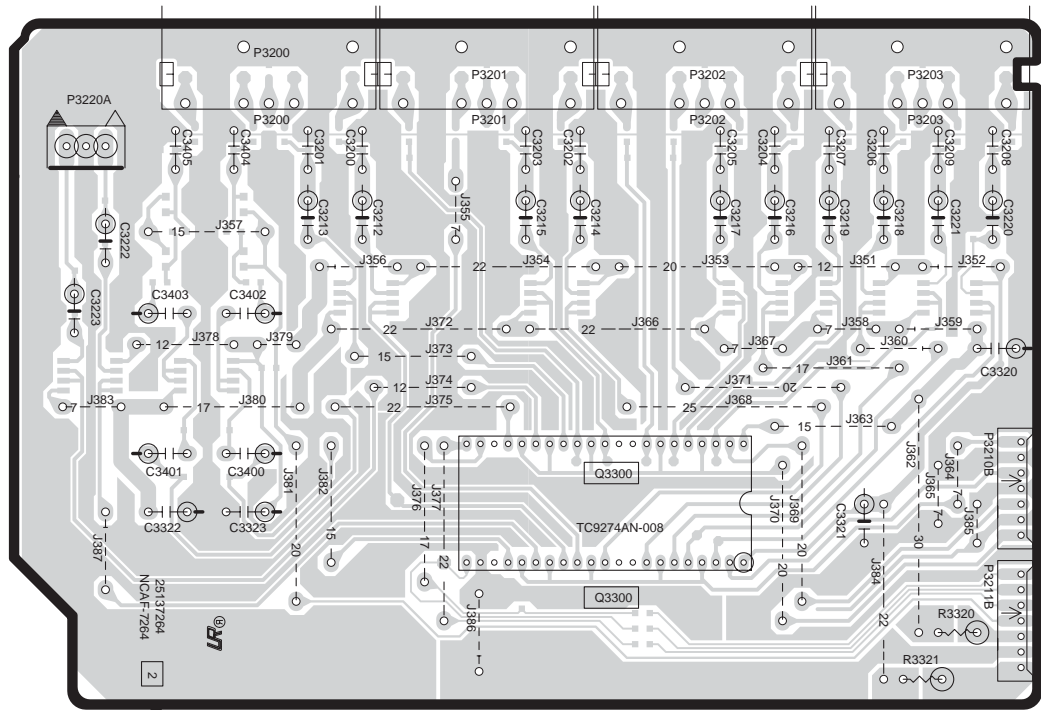


Main circuit PC board

A B C D E F G H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 3

1



5



1

2

3

4

5

A

B

C

D

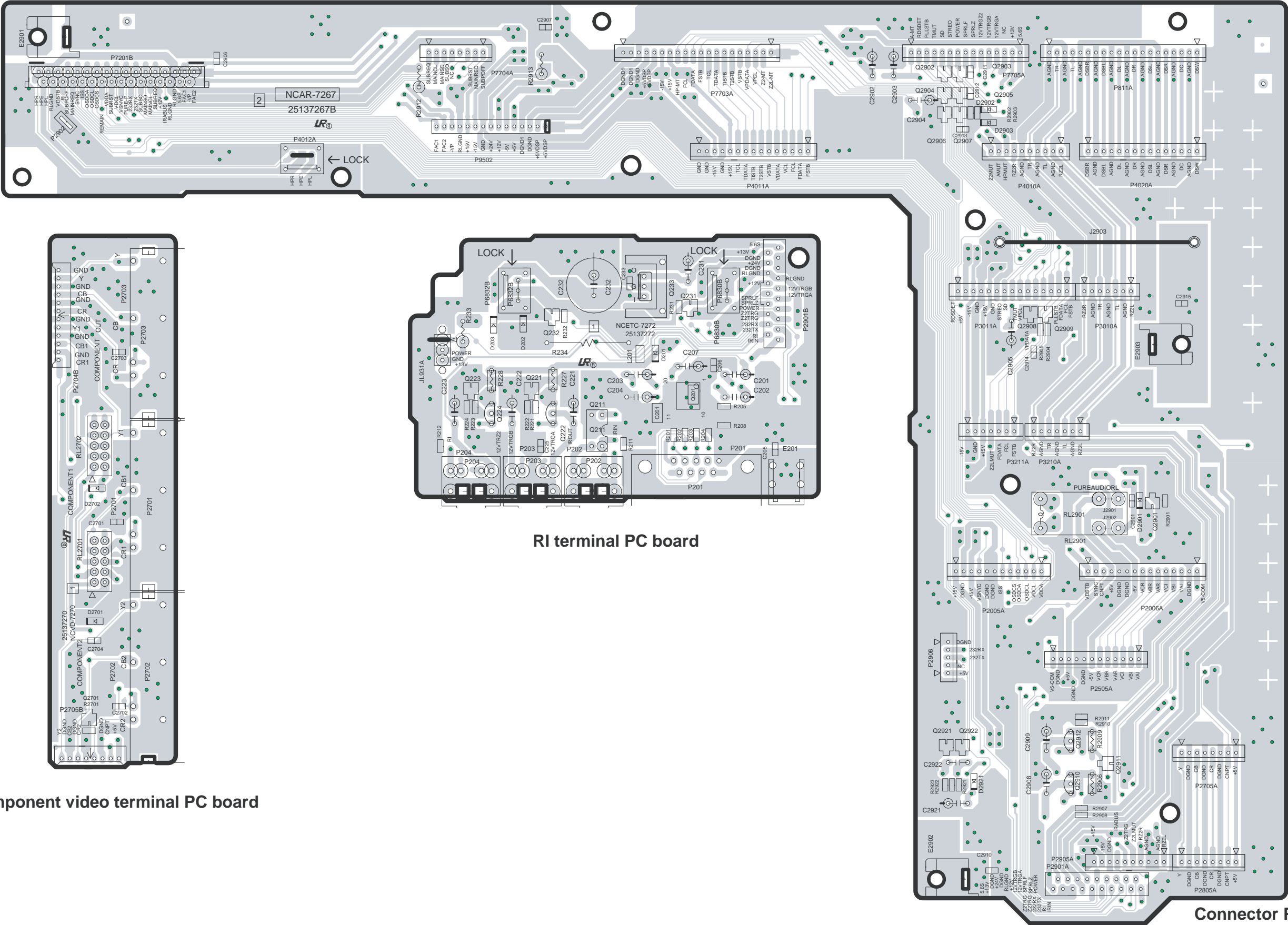
E

F

G

H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE B 9



Connector PC board

RI terminal PC board

Component video terminal PC board

A B C D E F G H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 1

Display section

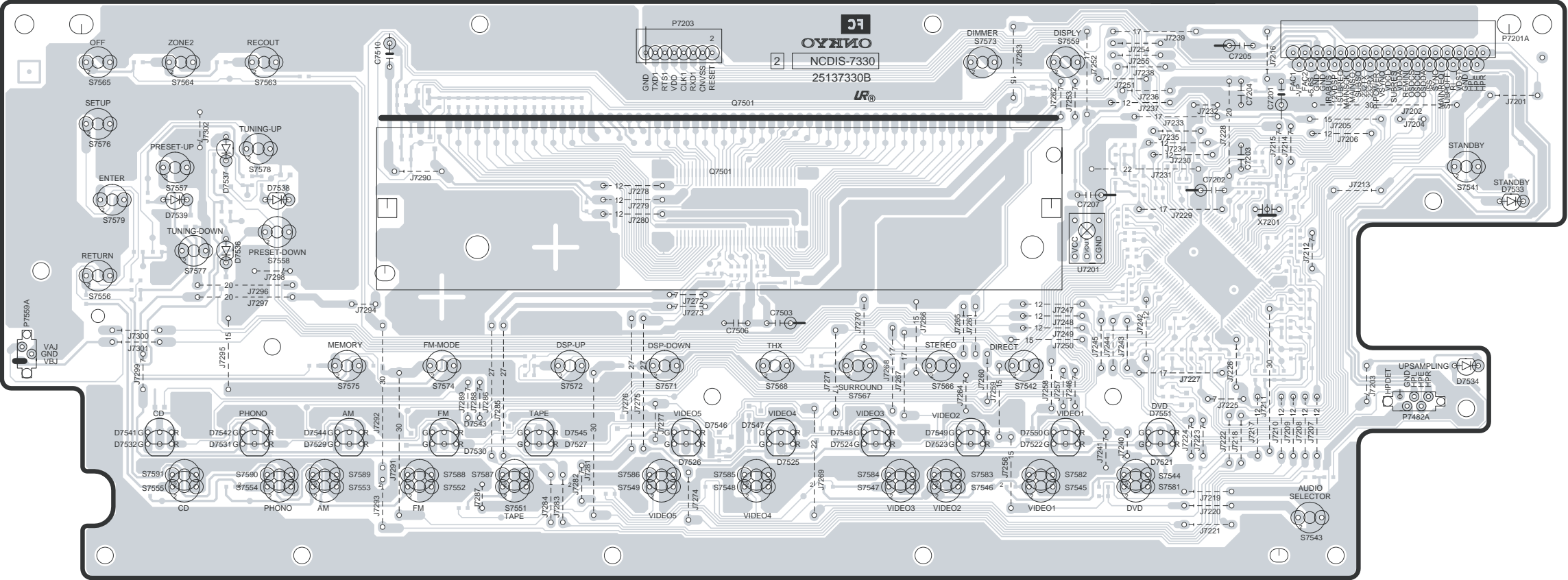
1

2

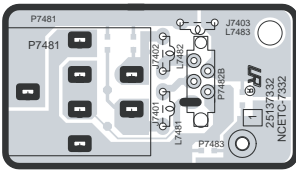
3

4

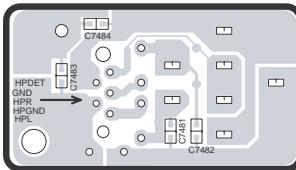
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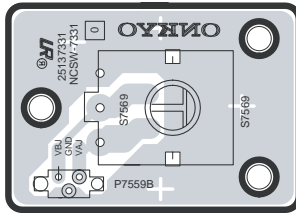
Component side



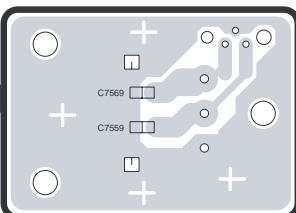
Component side



Soldering side
Headphone terminal
PC board



Component side



Soldering side
Volume PC board

A B C D E F G H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 1

Display section

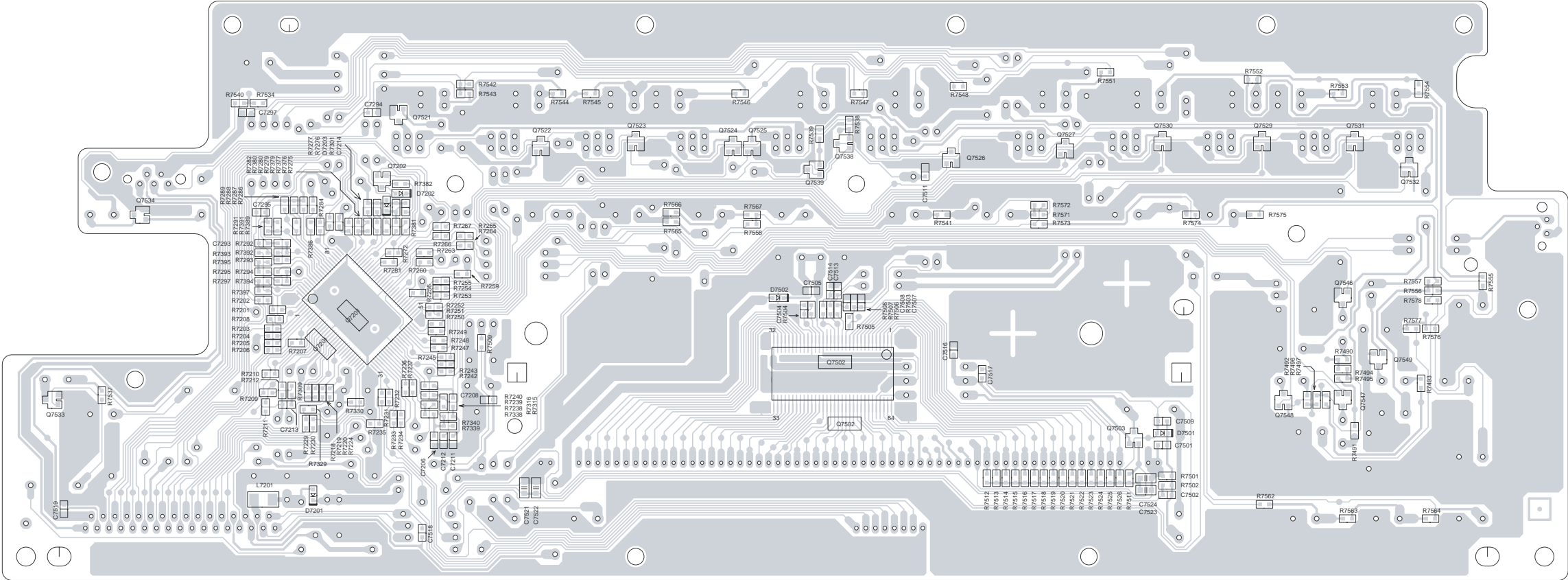
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2

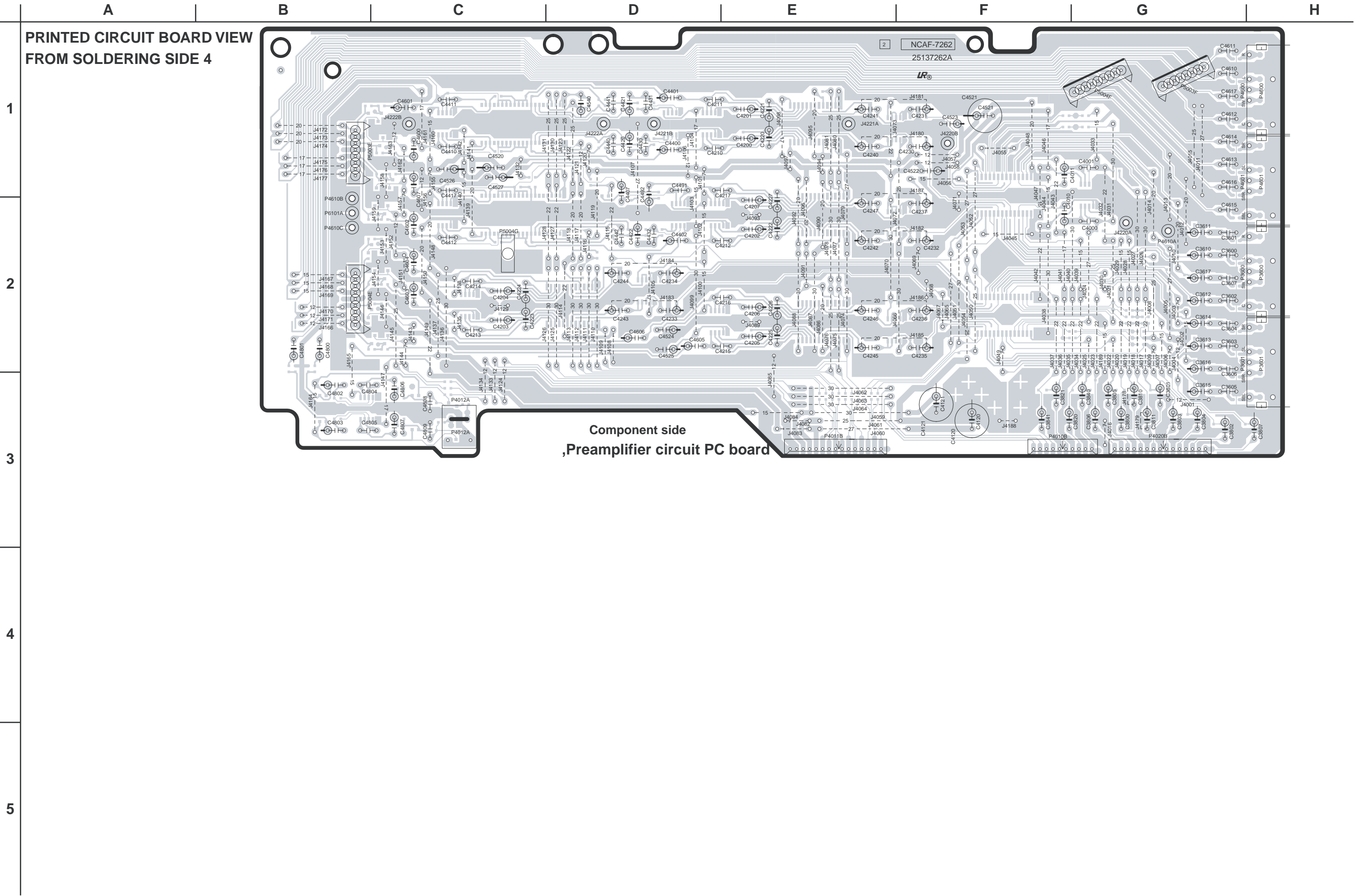
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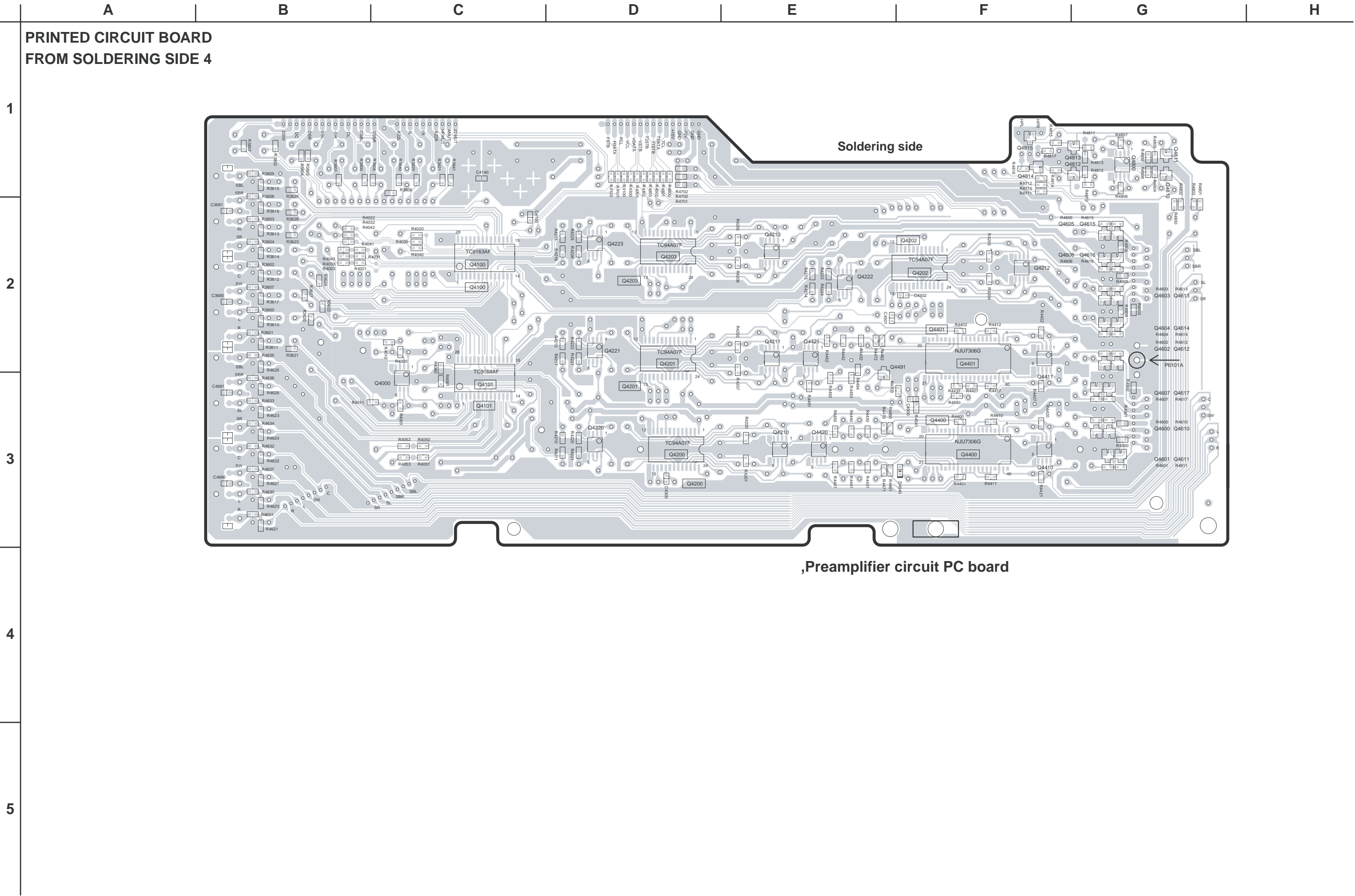
4

5



Soldering side Display circuit PC board





A B C D E F G H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 5

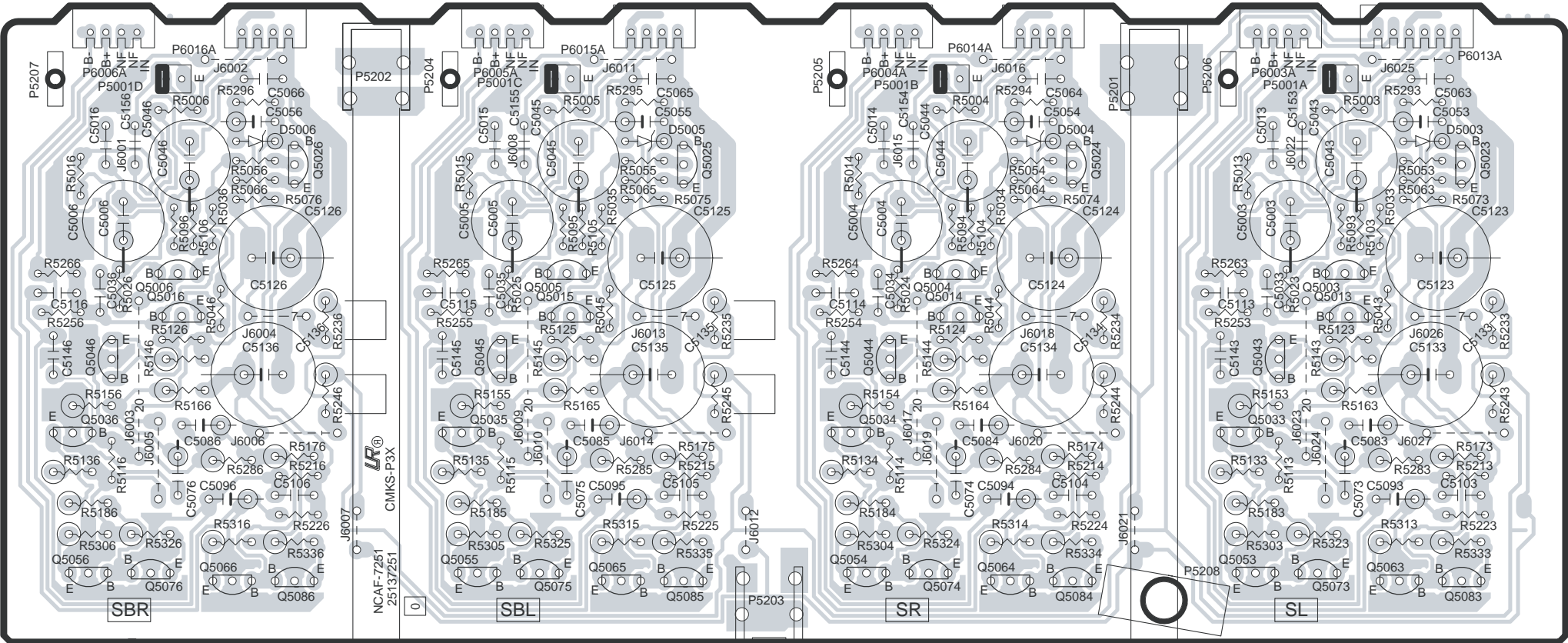
1

2

3

4

5



Power amplifier driver PC board 2

PRINTED CIRCUIT BOARD-PARTS LIST 1

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

MAIN CIRCUIT PC BOARD (NADG-7226-1N/1O/1R)

CIRCUIT NO. PART NO. DESCRIPTION

ICs		
Q100-Q102	22241448R2	NJM4580M-D
Q103	22241522R2	AK4528VF
Q104	22241633R3	AK4114VQ
Q105	222740046R2TO	TC74HCU04F
Q181	22241297R2	BU1923F <P>
Q701	22241731R9	CS493002-CL(PL2/ES/NEO)
Q702,Q712	22241458R3,	MBM29LV002TC-90PTN,
	22241457R3 or	MBM29LV004TC-90PTN or
	22241530R3	MBM29LV008TA-90PTN
Q704,Q705	22274574ER2TO	TC74VHC574FT
Q707	22240935R2	TC7WU04FU
Q708	22278025DR2NE	MPC2925T
Q709	22278033DR2NE	MPC2933T
Q711	22241456R9	CS493002-CL
Q713	22241517R3,	MPD441000LGU-B70X,
	22241459R3 or	MPD442000LGU-B70X or
	22241742R2	IS62LV1024LL-70H
Q714,Q715	22274574ER2TO	TC74VHC574FT
Q716	22274074ER2TO	TC74VHC74FT
Q717,Q718	22274541ER2TO	TC74VHC541FT
Q719	222740077R2TO	TC74HCT7007AF
Q7701	22241758R3 or	M30624MGA-364FP or
	22241512	M30624FGAFP:(NSP)
Q801	22241521R3	AK4356VQ
Q802-Q805	22241449R2,	NJM5532M-D,
	22241409R2 or	BA15532F or
	22241472R2	NJM2114M-D

Transistor

Q7702	2216210R2 or	KRC104S or
	2214490R2	RN1404

Photo couplers

U101	24120094	TOTX179
U103-U105	24120095	TORX179

Diodes

D101-D108	223234R2 or	1SS352 or
D7701-D7705	223269R2	1SS355
D7706	224490620R2 or	UDZ6.2B or
	224550620R2	UDZS6.2B

Oscillators

X101	3010331R2	HC-49/U03C24,576MHz,Crystal
X181	3010203 or	AF6146CG or
	3010345	HQS-3H2-04332-20 <P>
X701	3010324R2	CSTCV12,2MTJ0C4,Ceramic
X7701	3010329R2	CSTCV16,00MXJ0C,Ceramic

Coils

L101,L102	231237M022R2	NCH-1471
L103,L104	231237K470R2	NCH-1479
L105	231237M022R2	NCH-1471
L106,L107	230958R1	BK1608LM182-T
L108,L109	231237M022R2	NCH-1471
L181	231237K220R2	NCH-1477 <P>
L701,L702	231237M022R2	NCH-1471
L703,L707	231237K470R2	NCH-1479
L704	231237M022R2	NCH-1471
L705,R729	230958R1	BK1608LM182-T

CIRCUIT NO.

L751,L752
L753
L7701
L801,L802

C105

C110

C116,C119

C131,C139

C140

C143,C148

C150

C152,C153

C181

C184

C706,C716

C715

C731

C735,C736

C756,C766

C7701

C7703-C7705

C7711

C781

C802,C807

C847-C850

C854-C857

P101

P7701A

P7703B,P811B

P7704B

P7705B

P102AA

PART NO.

Coils

231237M022R2
231237K470R2
231237K220R2
231237M022R2

Capacitors

3567A4709R2 47uF,4V,Elect.
356724709R2 47uF,6.3V,Elect.
356723319R2 330uF,6.3V,Elect.
356724709R2 47uF,6.3V,Elect.
356741009R2 10uF,16V,Elect.
356724709R2 47uF,6.3V,Elect.
356784799R2 0.47uF,50V,Elect.
356741009R2 10uF,16V,Elect.
356780229R2 2.2uF,50V,Elect. <P>
356724709R2 47uF,6.3V,Elect. <P>
3567A1019R2 100uF,4V,Elect.
356724709R2 47uF,6.3V,Elect.
356721019R2 100uF,6.3V,Elect.
356724709R2 47uF,6.3V,Elect.
3567A1019R2 100uF,4V,Elect.
3000078 DX-5R5L104,Super for memory
356721019R2 100uF,6.3V,Elect.
356780109R2 1uF,50V,Elect.
356721019R2 100uF,6.3V,Elect.
356723319R2 330uF,6.3V,Elect.
356744709R2 47uF,16V,Elect.
356744709R2 47uF,16V,Elect.

Terminal

25045666 NPJ-3PDO465

Sockets

25052277R2 NSCT-5P2174
25051241 NSCT-20P1031
25051233 NSCT-8P1023
25051240 NSCT-15P1030

Plug

25055133 NPLG-3P117

F/C DRIVER CIRCUIT PC BOARD (NAAF-7232-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO. PART NO. DESCRIPTION

Transistors		
Q5000-Q5002	2215896,	* KTC3200-BL,
Q5010-Q5012	2210755,	* 2SC1775A-E,
	2210756 or	* 2SC1775A-F or
	2211733	* 2SC1845-E
Q5020-Q5022	2215896,	KTC3200-BL,
	2210755,	2SC1775A-E,
	2210756 or	2SC1775A-F or
Q5030-Q5032	2211733	2SC1845-E
	2215844,	KTA1024-Y,
	2211353,	2SA949-O,
Q5040-Q5042	2211354 or	2SA949-Y or
	2215843	KTA1024-O
	2215854,	KTC3206-Y,
Q5080-Q5082	2211633,	2SC2229-O,
	2211634 or	2SC2229-Y or
	2215853	KTC3206-O

NOTE: <P>:European model only (NSP): No spare parts

PRINTED CIRCUIT BOARD-PARTS LIST 2

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Diodes					
D5000-D5002	224470562	MTZJ5.6B	R901	431533355	⚠ RC1/2GFKUL-3.3M <D>
Capacitors					
C5000,C5001	393371017	100uF,63V,Elect.	R924	443521804	18ohm+/-5%,1/2W,Metal oxide
C5002	393384707	47uF,50V,Elect.	RL901	25065584,	⚠ NRL-1P10A-DC12-140,
C5010,C5011	374721015	100pF+/-10%,50V,Plastic		25065516 or	⚠ NRL-1P10A-DC12-097 or
C5012	374722215	220pF+/-10%,50V,Plastic		25065588	⚠ NRL-1P10A-DC12-143
C5040-C5042	393342217	220uF,16V,Elect.	Switch		
C5050-C5052	354781009	10uF,50V,Elect.	S902	25065437	⚠ NSS-22157P <WT/R>
C5070-C5072	354791009	10uF,100V,Elect.	AC outlet		
C5080-C5082	354772209	22uF,63V,Elect.	P902	25051126	⚠ NSCT-4P913 <D>
C5090-C5092	354784709	47uF,50V,Elect.		25051125	⚠ NSCT-4P912 <P/WT/GT>
C5100-C5102	374721015	100pF+/-10%,50V,Plastic		25052115	⚠ NSCT-2P2013 <A>
C5120-C5122	354791019	100uF,100V,Elect.		25052381	⚠ NSCT-2P2278 <R>
C5130-C5132	354791019	100uF,100V,Elect.	Fuses		
Resistors					
R5130-R5132	443528214	820ohm+/-5%,1/2W,Metal oxide	F901	252199	⚠ 10A-UL, Fuse <D/WT/WR>
R5140-R5142	443528214	820ohm+/-5%,1/2W,Metal oxide	F902	252077,	⚠ 4A-SE-EAK,
R5150-R5152	443521034	10kohm+/-5%,1/2W,Metal oxide		252243 or	⚠ 4A-SE-TL250V or
R5160-R5162	443521024	1kohm+/-5%,1/2W,Metal oxide	F903	252277	⚠ 4A-SE-TL250V,Fuse <O>
R5170-R5172	443528214	820ohm+/-5%,1/2W,Metal oxide		252075,	⚠ 2.5A-SE-EAK,
R5180-R5182	443523304	33ohm+/-5%,1/2W,Metal oxide		252241 or	⚠ 2.5A-SE-TL250V or
R5230-R5232	443521504	15ohm+/-5%,1/2W,Metal oxide		252275	⚠ 2.5A-SE-TL250V,Fuse <O>
R5240-R5242	443521504	15ohm+/-5%,1/2W,Metal oxide	F901A,F901B	25052133	⚠ NSCT-1P2031<D/WT/R>
R5280-R5282	443521034	10kohm+/-5%,1/2W,Metal oxide	F902A,F902B	25052133	⚠ NSCT-1P2031 <O>
R5300-R5302	443521014	100ohm+/-5%,1/2W,Metal oxide	F903A,F903B	25052133	⚠ NSCT-1P2031 <O>
R5330-R5332	443521014	100ohm+/-5%,1/2W,Metal oxide	Socket		
Terminals					
P5100,P5101	25060302	NTM-1P233(M1969)	JL931B	25050267	NSCT-3P95
Sockets					
P6000A-P6002A	25052287	NSCT-4P2184	P901A	25055675 or	NPLG-2P631 or
P6010A	25052289	NSCT-6P2186		25056028	NPLG-2P0978 <D>
P6011A,P6012A	25052287	NSCT-4P2184	P911	25055675 or	NPLG-2P631 or
				25056028	NPLG-2P0978
			P912	25055675 or	NPLG-2P631 or
				25056028	NPLG-2P0978 <WT/GT/R>

PRIMARY CIRCUIT PC BOARD (NAPS-7233-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistor		
Q921	2215864,	KTC3199-GR,
	2212115,	2SC2458-GR,
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Diodes		
D921-D924	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D925	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
Power transformer		
T902	2300670A	⚠ NPT-1111D <D>
	2300671A	⚠ NPT-1111P <P/A>
	2300672A	⚠ NPT-1111DG <GT/WT/R>
Capacitors		
C901	3500196S	⚠ RE275V-103M
C902	3300030	⚠ DE1307E472M-KH
C922	354762219	220uF,35V,Elect.

NOTE: <D>:120V model only
 <P>:European model only
 <WT>:Worldwide model only
 <GT> 220V model only
 <R> Chinese model only
 <A>: Australian model only
 <O>: All models except 120V model





RECTIFIER CIRCUIT PC BOARD (NAPS-7234-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Diodes		
D6901,D6902	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D6903,D6904	22380309 or	D15XB60 or
	22380044	RBV-1506
D6906	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
Capacitors		
C6903	374722234	0.022uF+/-5%,50V,Plastic
C6908-C6911	374733344	0.33uF+/-5%,100V,Plastic
C6915,C6916	374733344	0.33uF+/-5%,100V,Plastic
Relays		
RL6901,RL6902	25065584,	NRL-1P10A-DC12-140,
	25065516 or	NRL-1P10A-DC12-097 or
	25065588	NRL-1P10A-DC12-143

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

PRINTED CIRCUIT BOARD-PARTS LIST 3

NOTE: <D>:120V model only <R> Chinese model only
 <P>:European model only <A>: Australian model only
 <WT>:Worldwide model only <O>: All models except 120V model
 <GT> 220V model only

CIRCUIT NO.	PART NO.	DESCRIPTION
Fuses		
F6901,F6902	252199	 10A-UL, Fuse <D>
	252100	 10A-EAK, Fuse <O>
Fuse holders		
F6901A,F6901B	25052133	 NSCT-1P2031
F6902A,F6902B	25052133	 NSCT-1P2031
Fuse label		
F6901C	29362801	T10AL250V <O>
Socket		
JL6953B	25050268	NSCT-4P96
Plugs		
P6401	25055042	NPLG-3P32
P6951	25055172	NPLG-9P156
P6952A	25055168	NPLG-5P152
P9505A	25055600	NPLG-2P568
Radiator		
D6903A	27160483	RAD-152
Screws		
D6903B,D6904B	82143010	3P+10FN(BC)
Spring washers		
D6903C,D9604C	871430	SW-3(BC)

POWER SWITCH PC BOARD (NASW-7235-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
S906	25035636	 NPS-111-L590P,Push switch

SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1N/1O/1P/1Q/1R/1U)


CIRCUIT NO.	PART NO.	DESCRIPTION
Diode		
D6600	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
Coils		
L6800-L6802	231176S	S-1.3C <O>
Capacitors		
C6830-C6832	374731034	0.01uF+/-5%,100V,Plastic
C6840-C6842	374731024	1000pF+/-5%,100V,Plastic <O>
Resistors		
R6830-R6832	453630824	8.2ohm+/-5%,1W,Metal
Relays		
RL6600,RL6602	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
Terminals		
P6800	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
Plugs		
P6008A	25055167	NPLG-4P151
P6810D	25055166	NPLG-3P150
P6830	25055734	NPLG-3P690

SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Diodes		
D6603,D6605	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
Coils		
L6803-L6804	231176S	S-1.3C <O>
	L6806	S-1.3C <O>
Capacitors		
C6833,C6834	374731034	0.01uF+/-5%,100V,Plastic
C6836	374731034	0.01uF+/-5%,100V,Plastic
C6843,C6844	374731024	1000pF+/-5%,100V,Plastic <O>
C6846	374731024	1000pF+/-5%,100V,Plastic <O>
Resistors		
R5613	453530474	4.7ohm+/-5%,1/2W,Metal
R6833-R6836	453630824	8.2ohm+/-5%,1W,Metal
Relays		
RL6603,RL6605	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
Terminals		
P6802	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
Plugs		
P6008B	25055169	NPLG-6P153
P6812E	25055168	NPLG-5P152
P6832	25055734	NPLG-3P690
P6931	25055701	NPLG-5P657





FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistors		
Q5601	2212445	2SK365-GR
Q5602,Q5603	2215864,	KTC3199-GR,
Q5607,Q6701	2212115,	2SC2458-GR,
Q6702	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q5604,Q5605	2215820,	KRC104M,
Q5608,Q5609	221282 or	DTC144ES or
	2213560	RN1204
Q5606	2203595,	KTC2026-GR,
	2202705,	2SD2394-E,
	2202706 or	2SD2394-F or
Q6704	2203594	KTC2026-Y
	2215995,	KTA1267-GR,
	2212125,	2SA1048-GR,
	2213354 or	2SA933S-R or
	2213355	2SA933S-S
Diodes		
D5601	223163,	1SS133,
D5604-D5607	223205 or	1SS270A or
D5609,D5610	223222	WG713A
D5602,D5603	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D5611	224471303	MTZJ13C

NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

PRINTED CIRCUIT BOARD-PARTS LIST 3

NOTE: <D>:120V model only <R> Chinese model only
 <P>:European model only <A>: Australian model only
 <WT>:Worldwide model only <O>: All models except 120V model
 <GT> 220V model only

CIRCUIT NO.	PART NO.	DESCRIPTION
Fuses		
F6901,F6902	252199	 10A-UL, Fuse <D>
	252100	 10A-EAK, Fuse <O>
Fuse holders		
F6901A,F6901B	25052133	 NSCT-1P2031
F6902A,F6902B	25052133	 NSCT-1P2031
Fuse label		
F6901C	29362801	T10AL250V <O>
Socket		
JL6953B	25050268	NSCT-4P96
Plugs		
P6401	25055042	NPLG-3P32
P6951	25055172	NPLG-9P156
P6952A	25055168	NPLG-5P152
P9505A	25055600	NPLG-2P568
Radiator		
D6903A	27160483	RAD-152
Screws		
D6903B,D6904B	82143010	3P+10FN(BC)
Spring washers		
D6903C,D9604C	871430	SW-3(BC)

POWER SWITCH PC BOARD (NASW-7235-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
S906	25035636	 NPS-111-L590P, Push switch

SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1N/1O/1P/1Q/1R/1U)


CIRCUIT NO.	PART NO.	DESCRIPTION
Diode		
D6600	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
Coils		
L6800-L6802	231176S	S-1.3C <O>
Capacitors		
C6830-C6832	374731034	0.01uF+/-5%,100V,Plastic
C6840-C6842	374731024	1000pF+/-5%,100V,Plastic <O>
Resistors		
R6830-R6832	453630824	8.2ohm+/-5%,1W,Metal
Relays		
RL6600,RL6602	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
Terminals		
P6800	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
Plugs		
P6008A	25055167	NPLG-4P151
P6810D	25055166	NPLG-3P150
P6830	25055734	NPLG-3P690

SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Diodes		
D6603,D6605	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
Coils		
L6803-L6804	231176S	S-1.3C <O>
	L6806	S-1.3C <O>
Capacitors		
C6833,C6834	374731034	0.01uF+/-5%,100V,Plastic
C6836	374731034	0.01uF+/-5%,100V,Plastic
C6843,C6844	374731024	1000pF+/-5%,100V,Plastic <O>
C6846	374731024	1000pF+/-5%,100V,Plastic <O>
Resistors		
R5613	453530474	4.7ohm+/-5%,1/2W,Metal
R6833-R6836	453630824	8.2ohm+/-5%,1W,Metal
Relays		
RL6603,RL6605	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
Terminals		
P6802	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
Plugs		
P6008B	25055169	NPLG-6P153
P6812E	25055168	NPLG-5P152
P6832	25055734	NPLG-3P690
P6931	25055701	NPLG-5P657

FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistors		
Q5601	2212445	2SK365-GR
Q5602,Q5603	2215864,	KTC3199-GR,
Q5607,Q6701	2212115,	2SC2458-GR,
Q6702	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q5604,Q5605	2215820,	KRC104M,
Q5608,Q5609	221282 or	DTC144ES or
	2213560	RN1204
Q5606	2203595,	KTC2026-GR,
	2202705,	2SD2394-E,
	2202706 or	2SD2394-F or
Q6704	2203594	KTC2026-Y
	2215995,	KTA1267-GR,
	2212125,	2SA1048-GR,
	2213354 or	2SA933S-R or
	2213355	2SA933S-S
Diodes		
D5601	223163,	1SS133,
D5604-D5607	223205 or	1SS270A or
D5609,D5610	223222	WG713A
D5602,D5603	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D5611	224471303	MTZJ13C

NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

PRINTED CIRCUIT BOARD-PARTS LIST 4

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.


CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Diodes			Transistors		
D6701,D6702	223163,	1SS133,	Q6060-Q6064	2202813 or	* 2SA1943-O or
	223205 or	1SS270A or	Q6066	2202812	* 2SA1943-R
	223222	WG713A	Q6070-Q6074	2214984 or	2SC2631-R or
D6703,D6704	224470512	MTZJ5.1B	Q6076	2214985	2SC2631-S
Capacitors			Q6090-Q6092	2203424 or	KTB1369-Y or
C5602-C5604	354761019	100uF,35V,Elect.		2203000	2SA1930
C6701,C6706	354761019	100uF,6.3V,Elect.	Q6100-Q6102	2203434 or	KTD2061-Y or
C6704	354780109	1uF,50V,Elect.		2203010	2SC5171
Resistors			Q6703	2215885,	KTA1268-GR,
R5612	443521014	100ohm+/-5%,1/2W,Metal oxide		2211792,	2SA992-F,
R5616	441721224	1.2kohm+/-5%,2W,Metal oxide		2211793 or	2SA992-E or
Sockets				2215886	KTA1268-BL
P7701B	25052201,	NSCT-5P2098,	Diodes		
	25051271,	NSCT-5P1060,	D6000-D6004	223163,	1SS133,
	25051812 or	NSCT-5P1599 or	D6006	223205 or	1SS270A or
	25052014	NSCT-5P1801		223222	WG713A
P9503A	25051231	NSCT-6P1021	Cores		
JL6933A	25051088	NSCT-4P875	L6000-L6002	5597-45502	
THERMAL DETECTOR CIRCUIT PC BOARD			L6010-L6012	5597-45502	
(NAETC-7239-1N/1O/1P/1Q/1R/1U)			Capacitors		
CIRCUIT NO.	PART NO.	DESCRIPTION	C6000-C6004	374721024	1000pF+/-5%,50V,Plastic
Thermistors			C6006	374721024	1000pF+/-5%,50V,Plastic
R5651	4000153	PTH9M04BF222TS2F333	C6020-C6022	394501007	10uF,160V,Elect.
R5653	4000150	PTH9M04BC222TS2F333 <D>	C6023,C6024	354784709	47uF,50V,Elect.
	4000151	PTH9M04BD222TS2F333 <O>	C6026	354784709	47uF,50V,Elect.
Socket			C6030-C6034	374734734	0.047uF+/-5%,100V,Plastic
JL6933B	25051088	NSCT-4P875	C6036	374734734	0.047uF+/-5%,100V,Plastic
POWER AMPLIFIER DRIVER PC BOARD (NAAF-7250-2A/2B)			C6510-C6514	354790479	4.7uF,100V,Elect.
CIRCUIT NO.	PART NO.	DESCRIPTION	C6520-C6523	354790479	4.7uF,100V,Elect.
Transistors			C6531,C6532	374721034	0.01uF+/-5%,50V,Plastic
Q6000-Q6006	2213284 or	2SC1740S-R or	C6533	374721044	0.1uF+/-5%,50V,Plastic
Q6010-Q6014	2213285	2SC1740S-S	C6901,C6902	3504373	15000uF,71V,Elect.
Q6016	2213284 or	2SC1740S-R or	Resistors		
	2213285	2SC1740S-S	R6040-R6044	5210258	N06HR1KBC,Trimming
Q6020-Q6022	2215995,	KTA1267-GR,	R6046	5210258	N06HR1KBC,Trimming
	2212125,	2SA1048-GR,	R6070-R6072	443528204	82ohm+/-5%,1/2W,Metal oxide
	2213354 or	2SA933S-R or	R6073,R6074,R6076	443521814	180ohm+/-5%,1/2W,Metal oxide
	2213355	2SA933S-S	R6080-R6082	443521004	10ohm+/-5%,1/2W,Metal oxide
Q6023,Q6024	2211455 or	2SA1015-GR or	R6083,R6084	453530224	2.2ohm+/-5%,1/2W,Metal
Q6026	2211454	2SA1015-Y	R6086	453530224	2.2ohm+/-5%,1/2W,Metal
Q6030-Q6032	2215854,	KTC3206-Y,	R6090-R6092	443521004	10ohm+/-5%,1/2W,Metal oxide
	2211633,	2SC2229-O,	R6093,R6094	453530224	2.2ohm+/-5%,1/2W,Metal
	2211634 or	2SC2229-Y or	R6096	453530224	2.2ohm+/-5%,1/2W,Metal
	2215853	KTC3206-O	R6100-R6104	4000201,	RF-5EGKR22,
Q6033,Q6034	2203434 or	KTD2061-Y or	R6106	4000132 or	RGC55 0.22 or
Q6036	2203010	2SC5171		4500245	BPR55FK0.22, Metal plate
Q6040-Q6042	2215844,	KTA1024-Y,	R6130-R6134	453630824	8.2ohm+/-5%,1W,Metal
	2211353,	2SA949-O,	R6136	453630824	8.2ohm+/-5%,1W,Metal
	2211354 or	2SA949-Y or	R6230-R6232	443521214	120ohm+/-5%,1/2W,Metal oxide
	2215843	KTA1024-O	R6240-R6242	443521214	120ohm+/-5%,1/2W,Metal oxide
Q6043-Q6044	2203424 or	KTB1369-Y or	R6250-R6252	443521804	180ohm+/-5%,1/2W,Metal oxide
Q6046	2203000	2SA1930	R6260-R6262	443521804	180ohm+/-5%,1/2W,Metal oxide
Q6050-Q6054	2202823 or	* 2SC5200-O or	R6270-R6272	453530224	2.2ohm+/-5%,1/2W,Metal
Q6056	2202822	* 2SC5200-R	R6280-R6282	453530224	2.2ohm+/-5%,1/2W,Metal
			R6510-R6514	453532294	0.22ohm+/-5%,1/2W,Metal
			R6520-R6523	453532294	0.22ohm+/-5%,1/2W,Metal

PRINTED CIRCUIT BOARD-PARTS LIST 5

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.



CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminals			Transistors	
P5100A,P5101A	25060301	NTM-1P232(M1700)	Q5083,Q5084	2215854,	* KTC3206-Y,
P5201A,P5202A	25060301	NTM-1P232(M1700)	Q5086	2211633,	* 2SC2229-O,
	Sockets			2211634 or	* 2SC2229-Y or
P5003	2009990666UL	NSAS-12P0929		2215853	* KTC3206-O
P5004	2009990690UL	NSAS-12P0958		Diodes	
P6008	2009990670AUL	NSAS-14P0933	D5003,D5004	224470562	MTZJ5.6B
P6810	2009990668UL	NSAS-6P0931	D5006	224470562	MTZJ5.6B
P6812	2009990669UL	NSAS-6P0932		Capacitors	
P6931A	25051230	NSCT-5P1020	C5003,C5004	393384707	47uF,50V,Elect.
P6952	2009990671UL	NSAS-6P0934	C5006	393384707	47uF,50V,Elect.
	Plugs		C5013,C5014	374722215	220pF+/-10%,50V,Plastic
P6000-P6004	25056009	NPLG-4P0959	C5016	374722215	220pF+/-10%,50V,Plastic
P6006	25056009	NPLG-4P0959	C5043,C5044	393341017	100uF,16V,Elect.
P6010	25056011	NPLG-6P0961	C5046	393341017	100uF,16V,Elect.
P6011,P6012	25056009	NPLG-4P0959	C5053,C5054	354781009	10uF,50V,Elect.
P6013	25056011	NPLG-6P0961	C5056	354781009	10uF,50V,Elect.
P6014,P6016	25056009	NPLG-4P0959	C5073,C5074	354791009	10uF,100V,Elect.
P6080-P6084	25055038	NPLG-2P29	C5076	354791009	10uF,100V,Elect.
P6086	25055038	NPLG-2P29	C5083,C5084	354772209	22uF,63V,Elect.
	Retainer		C5086	354772209	22uF,63V,Elect.
P6009	27141794	(BUS)	C5093,C5094	354784709	47uF,50V,Elect.
	Bus bars		C5096	354784709	47uF,50V,Elect.
P6202,P6203	27141753	BBL50	C5103,C5104	374721015	100pF+/-10%,50V,Plastic
P6204,P6208	27141774	BBL75	C5106	374721015	100pF+/-10%,50V,Plastic
P6205	27141753	BBL50	C5123,C5124	354794709	47uF,100V,Elect.
P6206,P6207	27141773	BBL40	C5126	354794709	47uF,100V,Elect.
	Clamps		C5133,C5134	354794709	47uF,100V,Elect.
P6301-P6303	260224	CP-1S	C5136	354794709	47uF,100V,Elect.
P6305-P6307	260224	CP-1S		Resistors	
P9508	27301394	HL-18-0	R5133,R5134	443528214	820ohm+/-5%,1/2W,Metal oxide
	Heat sinks		R5136,R5143	443528214	820ohm+/-5%,1/2W,Metal oxide
Q6090A-Q6092A	27160486	RAD-155	R5144,R5146	443528214	820ohm+/-5%,1/2W,Metal oxide
	Screws		R5153,R5154	443521034	10kohm+/-5%,1/2W,Metal oxide
Q6090B-Q6092B	838430107	3TTB+10S(BC)	R5156	443521034	10kohm+/-5%,1/2W,Metal oxide
Q6100B-Q6102B	838430107	3TTB+10S(BC)	R5163,R5164	443521024	1kohm+/-5%,1/2W,Metal oxide
			R5166	443521024	1kohm+/-5%,1/2W,Metal oxide
POWER AMPLIFIER DRIVER PC BOARD (NAAF-7251-2A/2B)			R5173,R5174	443528214	820ohm+/-5%,1/2W,Metal oxide
CIRCUIT NO.	PART NO.	DESCRIPTION	R5176	443528214	820ohm+/-5%,1/2W,Metal oxide
	Transistors		R5183,R5184	443523304	33ohm+/-5%,1/2W,Metal oxide
Q5003,Q5004	2215896,	* KTC3200-BL,	R5186	443523304	33ohm+/-5%,1/2W,Metal oxide
Q5006,Q5013	2210755,	* 2SC1775A-E,	R5233,R5234	443521504	15ohm+/-5%,1/2W,Metal oxide
Q5014,Q5016	2210756 or	* 2SC1775A-F or	R5236,R5243	443521504	15ohm+/-5%,1/2W,Metal oxide
	2211733	* 2SC1845-E	R5244,R5246	443521504	15ohm+/-5%,1/2W,Metal oxide
Q5023,Q5024	2215896,	KTC3200-BL,	R5283,R5284	443521034	10kohm+/-5%,1/2W,Metal oxide
Q5026	2210755,	2SC1775A-E,	R5286	443521034	10kohm+/-5%,1/2W,Metal oxide
	2210756 or	2SC1775A-F or	R5303,R5304	443521014	100ohm+/-5%,1/2W,Metal oxide
	2211733	2SC1845-E	R5306,R5333	443521014	100ohm+/-5%,1/2W,Metal oxide
Q5033,Q5034	2215844,	KTA1024-Y,	R5334,R5336	443521014	100ohm+/-5%,1/2W,Metal oxide
Q5036,Q5043	2211353,	2SA949-O,		Terminals	
Q5044,Q5046	2211354 or	2SA949-Y or	P5201,P5202	25060302	NTM-1P233(M1969)
	2215843	KTA1024-O		Sockets	
Q5053,Q5054	2215844,	* KTA1024-Y,	P6003A,P6004A	25052287	NSCT-4P2184
Q5056	2211353,	* 2SA949-O,	P6006A	25052287	NSCT-4P2184
	2211354 or	* 2SA949-Y or	P6013A	25052289	NSCT-6P2186
	2215843	* KTA1024-O	P6014A,P6016A	25052287	NSCT-4P2184

PRINTED CIRCUIT BOARD-PARTS LIST 6

NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

NOTE: <D>: 120V model only
<O>: All models except 120V model

POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q9401	222780155JRC	NJM78M15FA
Q9411	222790155JRC	NJM79M15FA
Q9421,Q9431	222780054JRC	NJM7805FA
Q9441	222790054JRC	NJM7905FA
	Transistors	
Q6901	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S
Q9501	2211644	2SA965-Y
	Diodes	
D9501,D9502	22380285, 22380022 or 22380271	RS403M, RBV402 or D3SBA20
D9506,D9507	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D9508	224473304	MTZJ33D
	Capacitors	
C9401,C9402,C9411	394561007	10uF,35V,Elect.
C9412,C9421,C9422	394561007	10uF,35V,Elect.
C9431,C9432	394561007	10uF,35V,Elect.
C9441,C9442	394561007	10uF,35V,Elect.
C9501-C9504	374723344	0.33uF+/-5%,50V,Plastic
C9505	354762229	2200uF,35V,Elect.
C9506	354761029	1000uF,35V,Elect.
C9507	354782219	220uF,50V,Elect.
C9508	354744729	4700uF,16V,Elect.
C9509	354751029	1000uF,25V,Elect.
C9510	354772219	220uF,63V,Elect.
C9513	374723344	0.33uF+/-5%,50V,Plastic
C9521-C9523	374722234	0.022uF+/-5%,50V,Plastic
	Resistors	
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide
R9421-R9424	441620824	8.2ohm+/-5%,1W,Metal oxide
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide
R9521	453530224	2.2ohm+/-5%,1/2W,Metal
	Fuses	
F9501,F9502	252160 or 252254 252075, 252241 or 252275	 2.5A-UL/T-237 or  2.5A-T/UL-ST2 <D>  2.5A-SE-EAK,  2.5A-SE-TL250V or  2.5A-SE-TL250V <O>
F9503,F9504	252158 or 252252 252073 or 252239	 1.6A-UL/T-237 or  1.6A-T/UL-ST2 <D>  1.6A-SE-EAK or  1.6A-SE-TL250V <O>
	Fuse holders	
F9501A,F9501B	25052133	 NSCT-1P2031
F9502A,F9502B	25052133	 NSCT-1P2031
F9503A,F9503B	25052133	 NSCT-1P2031
F9504A,F9504B	25052133	 NSCT-1P2031

CIRCUIT NO. PART NO. DESCRIPTION

	Fuse labels	
F9501C	29361747	T2.5AL250V <O>
F9503C	29361769	T1.6AL250V <O>
	Sockets	
JL6953A,JL9504A	25051108	NSCT-4P895
	Plugs	
P9501	25055138	NPLG-8P122
P9502A	25055159	NPLG-15P143
P9503	25055702	NPLG-6P658


THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Thermistors	
R5652	4000153	PTH9M04BF222TS2F333
R5654	4000150	PTH9M04BC222TS2F333 <D>
	4000151	PTH9M04BD222TS2F333 <O>
	Socket	
JL9504B	25051088	NSCT-4P875

PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1N/1O/1P)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q4000,Q4420	22241383R2 or	NJM4565M-D
Q4421,Q4800	22240489R1NE	MPC4570G2-T1(MST)
Q4100	22240943R2	TC9163AF
Q4101	22241221R2	TC9164AF
Q4200-Q4203	22241640R2	TC94A07F
Q4210-Q4213	22241450R2 or	NJM2082M-D or
Q4410,Q4411	22241567R2	NJM2082M
Q4400,Q4401	22241451R9	NJU7306G
	Transistors	
Q4491	2215410R2	RN1441
Q4600-Q4607	2215410R2	RN1441
Q4610-Q4617	2215410R2	RN1441
Q4810-Q4815	2215410R2	RN1441
	Diode	
D4540	224490510R2	UDZ5.1B
	Capacitors	
C3600-C3607	374723314	330pF+/-5%,50V,Plastic
C3610-C3617	393381007	10uF,50V,Elect.
C3800-C3802	393384707	47uF,50V,Elect.
C3803-C3806	393381007	10uF,50V,Elect.
C3807	354724719	470uF,6.3V,Elect.
C3820,C3821	393384707	47uF,50V,Elect.
C3840,C3841	393381007	10uF,50V,Elect.
C4010,C4011	393381007	10uF,50V,Elect.
C4120	354742219	220uF,16V,Elect.
C4121	354741029	1000uF,16V,Elect.
C4200-C4207	393381007	10uF,50V,Elect.
C4217	374721024	1000pF+/-5%,50V,Plastic
C4220-C4227	393382207	22uF,50V,Elect.
C4400-C4402	393384707	47uF,50V,Elect.
C4407	393384707	47uF,50V,Elect.
C4417	374721024	1000pF+/-5%,50V,Plastic
C4420-C4422	354741009	10uF,16V,Elect.
C4430-C4432	374721044	0.1uF+/-5%,50V,Plastic
C4440-C4442	374724724	4700pF+/-5%,50V,Plastic

PRINTED CIRCUIT BOARD-PARTS LIST 6

NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

NOTE: <D>: 120V model only
<O>: All models except 120V model

POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q9401	222780155JRC	NJM78M15FA
Q9411	222790155JRC	NJM79M15FA
Q9421,Q9431	222780054JRC	NJM7805FA
Q9441	222790054JRC	NJM7905FA
	Transistors	
Q6901	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S
Q9501	2211644	2SA965-Y
	Diodes	
D9501,D9502	22380285, 22380022 or 22380271	RS403M, RBV402 or D3SBA20
D9506,D9507	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D9508	224473304	MTZJ33D
	Capacitors	
C9401,C9402,C9411	394561007	10uF,35V,Elect.
C9412,C9421,C9422	394561007	10uF,35V,Elect.
C9431,C9432	394561007	10uF,35V,Elect.
C9441,C9442	394561007	10uF,35V,Elect.
C9501-C9504	374723344	0.33uF+/-5%,50V,Plastic
C9505	354762229	2200uF,35V,Elect.
C9506	354761029	1000uF,35V,Elect.
C9507	354782219	220uF,50V,Elect.
C9508	354744729	4700uF,16V,Elect.
C9509	354751029	1000uF,25V,Elect.
C9510	354772219	220uF,63V,Elect.
C9513	374723344	0.33uF+/-5%,50V,Plastic
C9521-C9523	374722234	0.022uF+/-5%,50V,Plastic
	Resistors	
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide
R9421-R9424	441620824	8.2ohm+/-5%,1W,Metal oxide
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide
R9521	453530224	2.2ohm+/-5%,1/2W,Metal
	Fuses	
F9501,F9502	252160 or 252254 252075, 252241 or 252275	 2.5A-UL/T-237 or  2.5A-T/UL-ST2 <D>  2.5A-SE-EAK,  2.5A-SE-TL250V or  2.5A-SE-TL250V <O>
F9503,F9504	252158 or 252252 252073 or 252239	 1.6A-UL/T-237 or  1.6A-T/UL-ST2 <D>  1.6A-SE-EAK or  1.6A-SE-TL250V <O>
	Fuse holders	
F9501A,F9501B	25052133	 NSCT-1P2031
F9502A,F9502B	25052133	 NSCT-1P2031
F9503A,F9503B	25052133	 NSCT-1P2031
F9504A,F9504B	25052133	 NSCT-1P2031

CIRCUIT NO. PART NO. DESCRIPTION

	Fuse labels	
F9501C	29361747	T2.5AL250V <O>
F9503C	29361769	T1.6AL250V <O>
	Sockets	
JL6953A,JL9504A	25051108	NSCT-4P895
	Plugs	
P9501	25055138	NPLG-8P122
P9502A	25055159	NPLG-15P143
P9503	25055702	NPLG-6P658

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Thermistors	
R5652	4000153	PTH9M04BF222TS2F333
R5654	4000150	PTH9M04BC222TS2F333 <D>
	4000151	PTH9M04BD222TS2F333 <O>
	Socket	
JL9504B	25051088	NSCT-4P875

PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1N/1O/1P)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q4000,Q4420	22241383R2 or	NJM4565M-D
Q4421,Q4800	22240489R1NE	MPC4570G2-T1(MST)
Q4100	22240943R2	TC9163AF
Q4101	22241221R2	TC9164AF
Q4200-Q4203	22241640R2	TC94A07F
Q4210-Q4213	22241450R2 or	NJM2082M-D or
Q4410,Q4411	22241567R2	NJM2082M
Q4400,Q4401	22241451R9	NJU7306G
	Transistors	
Q4491	2215410R2	RN1441
Q4600-Q4607	2215410R2	RN1441
Q4610-Q4617	2215410R2	RN1441
Q4810-Q4815	2215410R2	RN1441
	Diode	
D4540	224490510R2	UDZ5.1B
	Capacitors	
C3600-C3607	374723314	330pF+/-5%,50V,Plastic
C3610-C3617	393381007	10uF,50V,Elect.
C3800-C3802	393384707	47uF,50V,Elect.
C3803-C3806	393381007	10uF,50V,Elect.
C3807	354724719	470uF,6.3V,Elect.
C3820,C3821	393384707	47uF,50V,Elect.
C3840,C3841	393381007	10uF,50V,Elect.
C4010,C4011	393381007	10uF,50V,Elect.
C4120	354742219	220uF,16V,Elect.
C4121	354741029	1000uF,16V,Elect.
C4200-C4207	393381007	10uF,50V,Elect.
C4217	374721024	1000pF+/-5%,50V,Plastic
C4220-C4227	393382207	22uF,50V,Elect.
C4400-C4402	393384707	47uF,50V,Elect.
C4407	393384707	47uF,50V,Elect.
C4417	374721024	1000pF+/-5%,50V,Plastic
C4420-C4422	354741009	10uF,16V,Elect.
C4430-C4432	374721044	0.1uF+/-5%,50V,Plastic
C4440-C4442	374724724	4700pF+/-5%,50V,Plastic

PRINTED CIRCUIT BOARD-PARTS LIST 7

NOTE: <D>:120V model only

<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C4491	374721024	1000pF+/-5%,50V,Plastic
C4492	354724719	470uF,6.3V,Elect.
C4522,C4523	354741009	10uF,16V,Elect.
C4524,C4525	354742219	220uF,16V,Elect.
C4540	354721019	100uF,6.3V,Elect.
C4600-C4607	393384707	47uF,50V,Elect.
C4610-C4617	374722224	2200pF+/-5%,50V,Plastic
C4800,C4801	354741009	10uF,16V,Elect.
C4802,C4803	354780229	2.2uF,50V,Elect.
C4806,C4807	354721019	100uF,6.3V,Elect.
C4808,C4809	374722224	2200pF+/-5%,50V,Plastic
Resistors		
R4520,R4521	4500171F	2.2ohm+/-5%,1/4W,Metal oxide
Terminals		
P3600,P4600	25045586	NPJ-4PDBRW397
P3601,P4601	25045575 or 25045303	NPJ-4PDRW389 or NPJ-4PDBL162
Sockets		
P4010B	25051235	NSCT-10P1025
P4011B,P4020B	25051240	NSCT-15P1030
Plugs		
P4012A	25055734	NPLG-3P690
P5003E	25055152	NPLG-8P136
P5004E	25055153	NPLG-9P137
Bus bars		
J4220-J4222	27141754	BBL60
Holder		
P5004G	27190608-1	Clamp

AUDIO TERMINAL PC BOARD (NAAF-7263-1N/1O/1P)

CIRCUIT NO.	PART NO. ICs	DESCRIPTION
Q1001	222780125	78M12HF
Q3000	22241383-R2 or	NJM4565M-D
Q3020,Q3021	22240489R1NE	MPC4570G2-T1(MST)
Q3100	22241639R2	TC9273F-017
	Transistor	
Q1102	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
	Capacitors	
C1002	354741009	10uF,16V,Elect.
C1003,C1006	354780339	3.3uF,50V,Elect.
C1007	354741009	10uF,16V,Elect.
C3000,C3001	374721015	100pF+/-10%,50V,Plastic <D>
	374722215	220pF+/-10%,50V,Plastic <O>
C3002,C3003	393384707	47uF,50V,Elect.
C3004,C3005	374721524	1500pF+/-5%,50V,Plastic <O>
C3006,C3007	354722219	220uF,6.3V,Elect.
C3008,C3009	374721234	0.012uF+/-5%,50V,Plastic
C3010,C3011	374723924	3900pF+/-5%,50V,Plastic
C3020-C3023	374723314	330pF+/-5%,50V,Plastic
C3026-C3029	393384707	47uF,50V,Elect.
C3120,C3121	354744709	47uF,16V,Elect.
C3122,C3123	354742219	220uF,16V,Elect.

CIRCUIT NO.	PART NO. Terminals	DESCRIPTION
P3000,P3001	25045575 or 25045303	NPJ-4PDRW389 or NPJ-4PDBL162
	Sockets	
P1010A	25052248, 25051859 or 25052061	NSCT-15P2145, NSCT-15P1646 or NSCT-15P1848
P3010B	25051232	NSCT-7P1022
P3011B	25051240	NSCT-15P1030

VIDEO TERMINAL PC BOARD (NAAF-7264-1N/1O/1P)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q3200-Q3205	22241383-R2 or	NJM4565M-D or
Q3400	22240489R1NE	MPC4570G2-T1(MST)
Q3300	22240829	TC9274N-008
	Transistors	
Q3410-Q3413	2215410R2	RN1441
	Capacitors	
C3200-C3209	374723314	330pF+/-5%,50V,Plastic
C3212-C3223	393384707	47uF,50V,Elect.
C3320,C3321	354742219	220uF,16V,Elect.
C3322,C3323	354744709	47uF,16V,Elect.
C3400-C3403	393384707	47uF,50V,Elect.
C3404,C3405	374721024	1000pF+/-5%,50V,Plastic
	Resistors	
R3320,R3321	443522204	22ohm+/-5%,1/2W,Metal oxide
	Terminals	
P3200-P3203	25045575 or	NPJ-4PDRW389 or
	25045303	NPJ-4PDBL162
	Sockets	
P3210B,P3211B	25051232	NSCT-7P1022
	Plug	
P3220A	25055133	NPLG-3P117

CONNECTOR PC BOARD (NAAF-7267-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q2903,Q2905	2216175R2 or	KTC3875-GR or
Q2907,Q2909	2213145R2	2SC2712-GR
Q2902,Q2904	2216220R2 or	KRA102S or
Q2906,Q2908	2214530R2	RN2402
Q2911,Q2921	2216190R2 or	KRC102S or
Q2922	2214470R2	RN1402
Q2912	2212855 or	2SB1068-U or
	2212853	2SB1068-K
	Diodes	
D2902,D2903	223234R2 or	1SS352 or
D2921	223269R2	1SS355
	Capacitors	
C2902-C2905	354741009	10uF,16V,Elect.
C2909	354741009	10uF,16V,Elect.
C2921	354721019	100uF,6.3V,Elect.
C2922	374722234	0.022uF+/-5%,50V,Plastic
	Thermistor	
R2909	4000195	RXE030

PRINTED CIRCUIT BOARD-PARTS LIST 8

NOTE: <O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Resistors			Coils		
R2912	453530474	4.7ohm+/-5%, 1/2W,Metal	L2001	231292J056R2	NCH-1572
R2913	453530224	2.2ohm+/-5%, 1/2W,Metal	L2002	231237K022R2	NCH-1471
Sockets			Capacitors		
P4012A	25051255	NSCT-3P1045	C2001	354721019	100uF, 6.3V,Elect.
P7201B	25051840	NSCT-33P1627	C2002,C2016	354780109	1uF, 50V,Elect.
P9502	2009990692UL	NSAS-30P0961	C2005	354783399	0.33uF, 50V,Elect.
Plugs			C2015	374726824	6800pF+/-5%, 50V,Plastic
P2005A,P2505A	25055708	NPLG-12P664	C2017	374722234	0.022uF+/-5%, 50V,Plastic
P2006A	25055711	NPLG-15P667	C2020	354784799	0.47uF, 50V,Elect.
P2705A	25055704	NPLG-8P660	C2021	375524744	0.47uF+/-5%, 50V,Plastic
P2901A	25055917	NPLG-19P870	C2022,C2024	354721019	100uF, 6.3V,Elect.
P2906	25055701	NPLG-5P657	C2026,C2028	354741009	10uF, 16V,Elect.
P3010A	25055703	NPLG-7P659	C2044	354741009	10uF, 16V,Elect.
P3011A	25055711	NPLG-15P667	C2045	354780229	2.2uF, 50V,Elect.
P3210A,P3211A	25055703	NPLG-7P659	C2046	354784799	0.47uF, 50V,Elect.
P4010A	25055706	NPLG-10P662	C2047	354721019	100uF, 6.3V,Elect.
P4011A,P4020A	25055711	NPLG-15P667	C2104,C2106	354721019	100uF, 6.3V,Elect.
P7703A	25055712	NPLG-20P668	C2121	354741009	10uF, 16V,Elect.
P7704A	25055704	NPLG-8P660	C2204,C2206	354721019	100uF, 6.3V,Elect.
P7705A	25055711	NPLG-15P667	C2221,C2306	354721019	100uF, 6.3V,Elect.
P811A	25055712	NPLG-20P668	C2301-C2304	354721019	100uF, 6.3V,Elect.
Bus bar			Terminals		
J2903	27141753	BBL50	P2001-P2003	25045299	NPJ-3PDYE158
Clamp			Sockets		
P2902	260224	CP-1S	P2005B	25051237	NSCT-12P1027

COMPOSITE VIDEO CIRCUIT PC BOARD (NAVD-7268-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q2001	22241037	LC74761-9189
Q2005	22241619R2	TC9273F-004
Q2101	222740515R2	74HC4051AF
Q2102, Q2105	22241443R2	TK15420M
Q2201	222740515R2	74HC4051AF
Transistors		
Q2002, Q2006	2216175R2 or	KTC3875-GR or
Q2103, Q2106	2213145R2	2SC2712-GR
Q2003, Q2004	2216031R2 or	RN1444-A or
Q2108, Q2109	2216032R2	RN1444-B
Q2007	2216210R2 or	KRC104S or
	2214490R2	RN1404
Q2011-Q2014	2216220R2 or	KRA102S or
	2214530R2	RN2402
Q2104, Q2107	2216185R2 or	KTA1504-GR or
	2214375R2	2SA1162-GR
Q2301-Q2308	2216031R2 or	RN1444-A or
	2216032R2	RN1444-B
Diodes		
D2001	223234R2 or	1SS352 or
D2006, D2007	223269R2	1SS355
D2103, D2104	223234R2 or	1SS352 or
D2106, D2107	223269R2	1SS355
Crystals		
X2001	3010167 or	XTL-14.32M or
	3010347	HQS-HC49U-14318-11
X2002	3010238 or	XTL-17.73M or
	3010348	HQS-HC49U-17734-11 <O>

S VIDEO CIRCUIT PC BOARD (NAVD-7269-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q2501, Q2511	222740515R2	74HC4051AF
Q2502, Q2602	22241443R2	TK15420M
Q2601, Q2611	222740515R2	74HC4051AF
Transistors		
Q2401-Q2414	2216031R2 or	RN1444-A or
Q2522, Q2622	2216032R2	RN1444-B
Q2503, Q2505	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
Q2504, Q2506	2216185R2 or	KTA1504-GR or
	2214375R2	2SA1162-GR
Diodes		
D2503-D2506	223234R2 or	1SS352 or
	223269R2	1SS355
Coils		
L2508, L2608	231237K022R2	NCH-1471
L2509, L2609	231292J056R2	NCH-1572
Capacitors		
C2422, C2424	354721019	100uF, 6.3V, Elect.
C2426, C2428	354721019	100uF, 6.3V, Elect.
C2432	354721019	100uF, 6.3V, Elect.
C2504, C2506	354721019	100uF, 6.3V, Elect.
C2573, C2575	354721019	100uF, 6.3V, Elect.
C2604, C2606	354721019	100uF, 6.3V, Elect.

PRINTED CIRCUIT BOARD-PARTS LIST 9

CIRCUIT NO. PART NO. DESCRIPTION			CONNECTOR PC BOARD (NAETC-7273-1N/1O)		
	Sockets		CIRCUIT NO. PART NO. DESCRIPTION		
P2501	25051750	NSCT-4P1537		Plugs	
P2502	25051568	NSCT-12P1355	P2007A,P2507A	25055712	NPLG-20P668
P2503,P2504	25051748	NSCT-8P1535			
P2505B	25051237	NSCT-12P1027			
P2507B	25051241	NSCT-20P1031			
	Plug				
P2506A	25055236	NPLG-5P220			
COMPONENT VIDEO CIRCUIT PC BOARD (NAVD-7270-1N/1O)					
CIRCUIT NO. PART NO. DESCRIPTION			CIRCUIT NO. PART NO. DESCRIPTION		
	Transistor			FL tube	
Q2701	2216175R2 or 2213145R2	KTC3875-GR or 2SC2712-GR	Q7501	212216	16-BT-96GNK
	Diode			Remote sensor	
D2701	223234R2 or 223269R2	1SS352 or 1SS355	U7201	241335 or 241341	SPS-444-1 or SPS-444-1-E1
	Relays			ICs	
RL2701,RL2702	25065610	NRL-2P1A-DC4,5-156	Q7201	22241682R3	M30624MGA-359FP
	Terminals		Q7502	22241680R2	M66005-0001FP
P2701-P2703	25045629 25045607	NPJ-3PDGLR436 <D> NPJ-3PDGLR414 <O>		Transistors	
	Socket		Q7202	2216230R2 or 2214540R2	KRA103S or RN2403
P2705B	25051233	NSCT-8P1023	Q7503	2216175R2 or 2213145R2	KTC3875-GR or 2SC2712-GR
			Q7538,Q7539	2216190R2 or 2214470R2	KRC102S or RN1402
			Q7521-Q7527	2216190R2 or 2214470R2	KRC102S or RN1402
			Q7529-Q7534		
			Q7546-Q7549		
				Diodes	
			D7201,D7202	223234R2 or 223269R2	1SS352 or 1SS355
			D7502	224490510R2 or 224550510R2	UDZ5.1B or UDZS5.1B
			D7203	224490820R2 or 224550820R2	UDZ8.2B or UDZS8.2B
			D7501		
			D7521-D7527	225375	SML1216C
			D7529-D7532	225375	SML1216C
			D7533	225290	SEL4110R
			D7534	225292D	SEL4310G-D
			D7536-D7539	225292D	SEL4310G-D SEL4310D-D <S/G>
				Oscillator	
			X7201	3010322	CST16,00MXW0C1,Ceramic
				Coils	
			L7201	231237M022R2	NCH-1471
			R7201,R7202	230958R1	BK1608LM182-T
				Capacitors	
			C7201,C7202	355721019	100uF,6.3V,Elect.
			C7203,C7204	375524744	0.47uF+/-5%,50V,Plastic
			C7207	355721019	100uF,6.3V,Elect.
			C7503	354721019	100uF,6.3V,Elect.
			C7506	375524744	0.47uF+/-5%,50V,Plastic
			C7510	355783309	3.3uF,50V,Elect.
				Switches	
			S7541-S7543	25035699	NPS-111-S662
			S7545-S7549	25035699	NPS-111-S662
			S7551-S7559	25035699	NPS-111-S662
			S7563-S7568	25035699	NPS-111-S662
			S7571-S7579	25035699	NPS-111-S662
			S7581	25035699	NPS-111-S662

NOTE: <D>: 120V model only
: Black model only
<S>: Silver model only

<O>: All models except 120V model
<G>: Golden model only

PRINTED CIRCUIT BOARD-PARTS LIST 10

CIRCUIT NO.	PART NO.	DESCRIPTION
	Sockets	
P7201A	25051877	NSCT-33P1664
P7482A	25051089	NSCT-5P876
P7559A	25051087	NSCT-3P874
	Holder	
Q7501A	27191074A	(FL)

VOLUME PC BOARD (NASW-7331-1A/1B/1C/1D/1E/1F/1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
S7569	25065575	EC16B2425, Rotary encoder
P7559B	25051087	NSCT-3P874, Socket

HEADPHONE TERMINAL PC BOARD (NAETC-7332-1A/1B/1C/1D/1E/1F/1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
P7481	25045514	YKB26-5005, Terminal <D/P>
	25045385	YKB26-5153, Terminal <GT/A/WT/R>
P7482B	25051089	NSCT-5P876, Socket

FRONT VIDEO PC BOARD (NAAF-7227-1N/1O/1R)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminals	
P2508	25051961	NSCT-4P1748 <D/P>
	25051569	NSCT-4P1356 <WT/A/GT/R>
P2510	25045674	NPJ-3PDB472 <D/P>
	25045675	NPJ-3PDB473 <WT/A/GT/R>
	Sockets	
P2506B	2009990575UL	NSAS-10P0784
P3220B	2009990420	NSAS-6P0564

FRONT VIDEO 2 PC BOARD (NADG-7228-1N/1O/1R)

CIRCUIT NO.	PART NO.	DESCRIPTION
U2501	24120095	TORX179, Photo coupler
L2501	231237M022R2	NCH-1471, Coil
C2581	356741009R2	10uF, 16V, Elect. Capacitor
P102B	2009990513UL	NSAS-6P0675, Socket

NOTE: <D>: 120V model only

<P>: European model only

<WT>: Worldwide model only

<GT> 220V model only

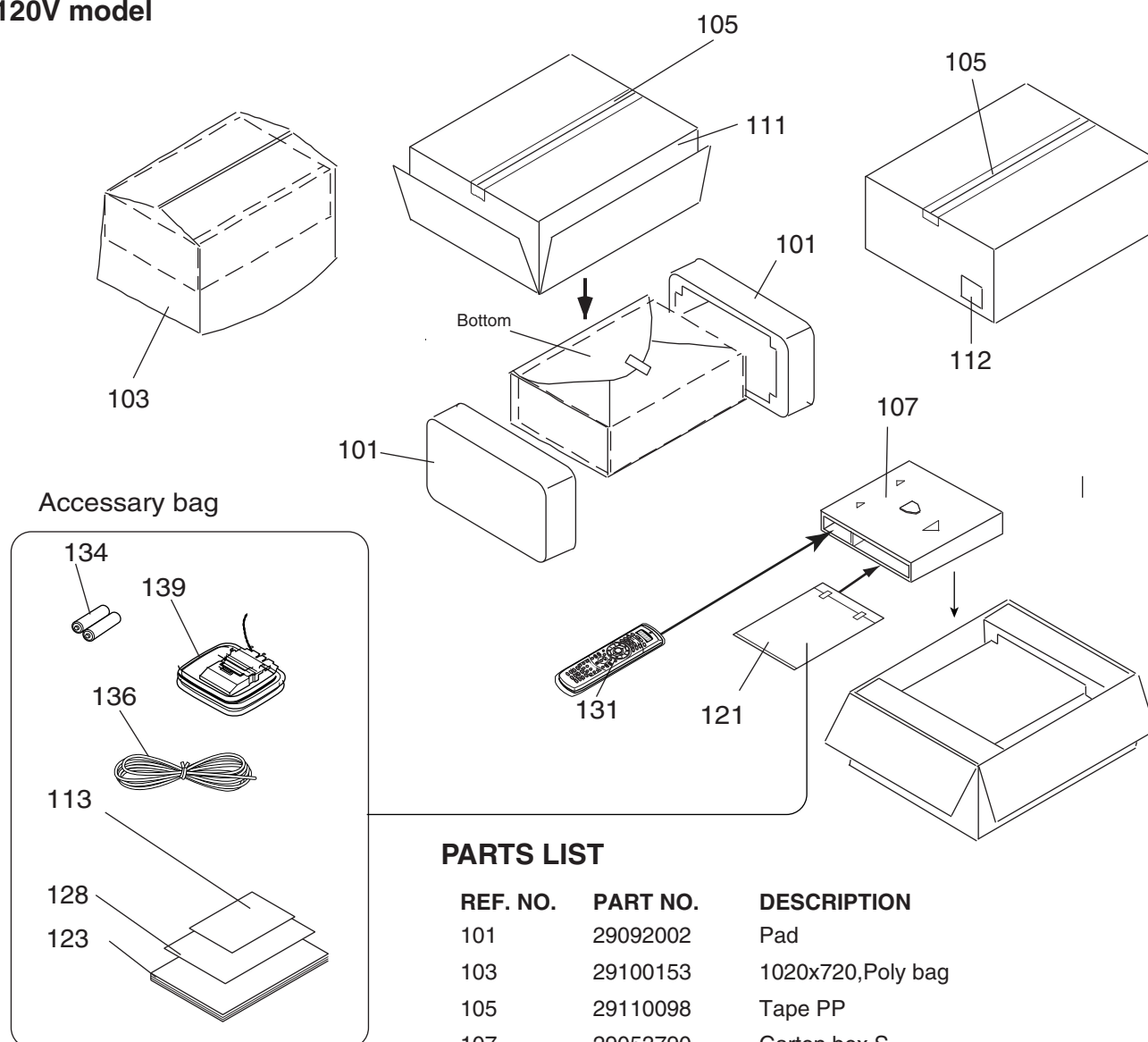
<R> Chinese model only

<A>: Australian model only

<O>: All models except 120V model

PACKING PROCEDURES

120V model

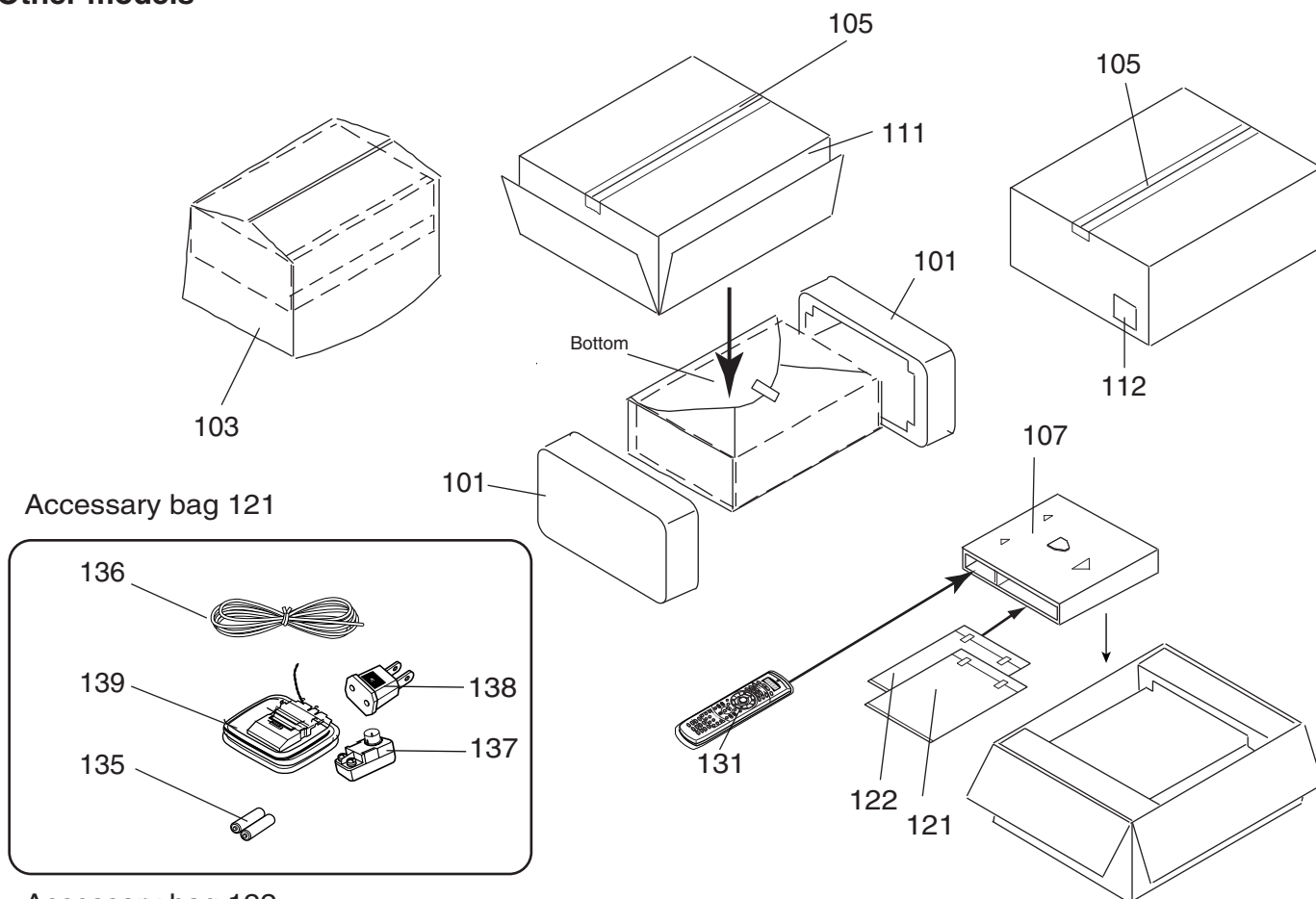


PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
101	29092002	Pad
103	29100153	1020x720,Poly bag
105	29110098	Tape PP
107	29053790	Carton box S
111	29053815A	Carton box
112	29362958A	Label UPC
113	29365090	Warranty card
121	29100097-1A	350*250,Poly bag
123	29343204A	Instruction manual E
128	29343205	Instruction manual E
131	24140460	RC-460M,Remote controller
134	3010054	UM-3,Two batteries
136	292142	FM antenna
139	232140	NMA-3057,AM antenna

PACKING PROCEDURES

Other models



NOTE:: Black model only
 <S>: Silver model only
 <G>: Golden model only
 <P>: European model only
 <WT>: Worldwide model only
 <GT>: 220V model only
 <A>: Australian model only
 <R>: Chinese model only

REF. NO.	PART NO.	DESCRIPTION
101	29092002	Pad
103	29100153	1020x720,Poly bag
105	29110098	Tape PP
107	29053790	Carton box S
111	29053816A	Carton box <P>
	29053817A	Carton box <WT/A>
	29053818A	Carton box <S>
	29053819A	Carton box <G>
112	29362955A	Label EAN
	29362956A	Label EAN <S>
	29362957A	Label EAN <G>
121	29100097-1A	350*250,Poly bag
122	29100097-1A	350*250,Poly bag
123	29343204A	Instruction manual E
124	29343206	Instruction manual FSI <P>
	29343208	Instruction manual CTCS <WT/GT/R>
125	29343207	Instruction manual GDSw <P>
131	24140460	RC-460M,Remote controller
135	3010054	UM-3,Two batteries
136	292115	FM antenna
137	25065462	YAE21-0237,Antenna adapter <WT/A/GT>
138	25056005	CV-K-1,Conversion plug <WT>
139	232140	NMA-3057,AM antenna

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